Pezzuto, Helen

From: STIC-EIC1700@uspto.gov
Sent: Tuesday, September 04, 2007 7:29 PM
To: Pezzuto, Helen
Subject: Database Search Request Confirmation, Serial Number: 10/579,547

Examiner HELEN PEZZUTO:

This is a machine-generated confirmation email to let you know that your search request has been sent to EIC1700.

Searches are processed in the order in which they are received. Upon receiving your request, a searcher will contact you to discuss your search. You will be notified again when your search is completed. At that time, you may pick up your search in the EIC. If you prefer, the search will be delivered directly to your office. Deliveries are made twice a day, once in the midmorning and again in the afternoon.

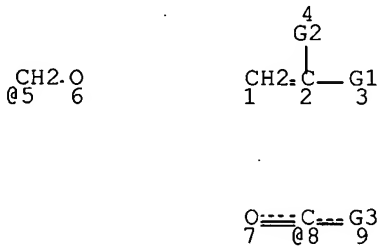
If you have any immediate questions you can contact us at 571-272-2530.

Thank you very much for using the EIC. The text of your request is below.

Your name: **HELEN PEZZUTO**
Email address: **HELEN.PEZZUTO@USPTO.GOV**
Employee number: **70058**
Art Unit: **GROUP ART UNIT 1713**
Office Location: **REM 10A11**
Phone Number: **(571)272-1108**
Mailbox Number:

Case serial number: **10/579,547**
Class / Subclass(es): **526/258+**
Earliest Priority Filing Date:
Format preferred for results: **E-mail**
Attachments: **No attachment.**
Search Topic Information:
claims 1-6 are pending. Please search a copolymer derived from monomers A (i.e. alkyl polyalkylene glycol (meth)acrylate or (meth)acrylamide), B (i.e. diallyldimethyl ammonium chloride or 3-methyl-1-vinylimidazolium methyl sulfate), C (i.e. 2-acrylamido-2-methylpropane sulfonic acid) and D monomers as defined in claims 1-3. Representative monmers are disclosed on pages 4-8 in the specification. Many thanks!
Special Instructions and Other Comments:

```
=>  file reg
FILE 'REGISTRY' ENTERED AT 12:12:26 ON 12 SEP 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   11 SEP 2007  HIGHEST RN 946658-01-1
DICTIONARY FILE UPDATES:  11 SEP 2007  HIGHEST RN 946658-01-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> file hcaplu
FILE 'HCAPLUS' ENTERED AT 12:12:31 ON 12 SEP 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 12 Sep 2007  VOL 147 ISS 12
FILE LAST UPDATED: 11 Sep 2007  (20070911/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que
L33           1 SEA FILE=HCAPLUS ABB=ON  WO2004-EP13020/PRN
L42             STR
```



VAR G1=5/8
VAR G2=H/CH3
VAR G3=O/NH
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

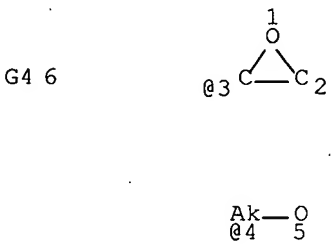
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
L45 SCR 2043
L47 STR

NODE ATTRIBUTES:
CHARGE IS E+1 AT 1
NSPEC IS RC AT 1
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

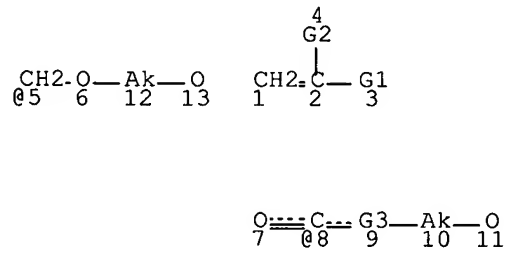
STEREO ATTRIBUTES: NONE
L49 STR



VAR G4=3/4
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M2-X6 C AT 4

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L51 11332 SEA FILE=REGISTRY SSS FUL L42 AND L49 AND L47 AND L45
L54 29867 SEA FILE=REGISTRY ABB=ON 75-21-8/CRN
L55 385 SEA FILE=REGISTRY ABB=ON L51 AND L54
L56 289931 SEA FILE=REGISTRY ABB=ON PETH/PCT
L57 376 SEA FILE=REGISTRY ABB=ON L55 AND L56
L59 STR



VAR G1=5/8
VAR G2=H/CH3
VAR G3=O/NH
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 10
CONNECT IS E2 RC AT 12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M2-X6 C AT 10
ECOUNT IS M2-X6 C AT 12

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L61 3460 SEA FILE=REGISTRY SUB=L51 SSS FUL L59
L62 913 SEA FILE=REGISTRY ABB=ON L61 AND L56
L66 1222 SEA FILE=REGISTRY ABB=ON L62 OR L57
L67 1071 SEA FILE=REGISTRY ABB=ON L66 NOT (SI OR P)/ELS
L68 524 SEA FILE=HCAPLUS ABB=ON L67
L69 357 SEA FILE=HCAPLUS ABB=ON L68(L)PREP/RL
L71 276 SEA FILE=HCAPLUS ABB=ON L69 AND COPOLYM?
L72 70 SEA FILE=HCAPLUS ABB=ON L71 AND (?ALKYLENE? OR ?ETHYLENE? OR ?PROPYLENE? OR ?BUTYLENE? OR ?PENTYLENE? OR ?HEXYLENE?)(W)OXIDE #
L75 1 SEA FILE=HCAPLUS ABB=ON L71 AND (POLYOXY?)(W)(ALKYL? OR ETHYL? OR PROPYL? OR BUTYL? OR PENTYL? OR HEXYL?)
L76 257582 SEA FILE=HCAPLUS ABB=ON POLYOXYALKYLENES+NT/CT
L77 139 SEA FILE=HCAPLUS ABB=ON L71 AND L76
L78 162 SEA FILE=HCAPLUS ABB=ON L72 OR L75 OR L77
L81 36 SEA FILE=HCAPLUS ABB=ON L78 AND POLYMER?/SC,SX
L84 36 SEA FILE=HCAPLUS ABB=ON L78 AND DISPERS?
L85 23 SEA FILE=HCAPLUS ABB=ON L84 AND (PLASTIC? OR POLYMER?)/SC,SX
L88 137 SEA FILE=HCAPLUS ABB=ON L78 AND (1840-2004)/PRY,AY,PY
L89 29 SEA FILE=HCAPLUS ABB=ON L81 AND L88
L90 18 SEA FILE=HCAPLUS ABB=ON L85 AND L88

L91 39 SEA FILE=HCAPLUS ABB=ON L89 OR L90
L92 1 SEA FILE=HCAPLUS ABB=ON L33 AND L91

=> d l91 bib abs hitind hitstr 1-39

L91 ANSWER 1 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:215316 HCAPLUS Full-text
DN 144:302045
TI Process for the production of a lithographic printing plate
IN Strehmel, Bernd; Baumann, Harald; Fiebag, Ulrich; Ebhardt, Tanja; Pietsch, Detlef
PA Kodak Polychrome Graphics, G.m.b.H., Germany
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006026230	A1	20060309	WO 2005-US29800	20050823 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	DE 102004041942	B3	20060330	DE 2004-102004041942	20040830 <--
	WO 2006028440	A1	20060316	WO 2004-US28341	20040901 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	EP 1787166	A1	20070523	EP 2004-782764	20040901 <--
	R: DE, FR, GB				
	CN 101010633	A	20070801	CN 2004-80043868	20040901 <--
	EP 1791700	A1	20070606	EP 2005-786617	20050823 <--
	R: FR, GB				
	CN 101005959	A	20070725	CN 2005-80028022	20050823 <--
PRAI	DE 2004-102004041942	A	20040830 <--		
	WO 2004-US28341	W	20040901 <--		
	WO 2005-US29800	W	20050823		

AB The invention relates to process for the posttreatment of an imaged lithog. printing plate comprising (a) providing a lithog. printing plate comprising image areas and non-image areas on a lithog. substrate; (b) bringing the lithog. printing plate of step (a) into contact with a solution comprising a hydrophilic polymer comprising structural units derived from the following

compds.: (i) a compound comprising both **polyalkylene oxide** chains and at least one structural unit which is free-radical polymerizable, and (ii) a monomer capable of **copolymg** . with the free-radical polymerizable structural unit of (i) and furthermore comprising at least one acidic functional group with pKs<5, wherein the acidic functional group can be present as a free acid group or in the form of a salt; (c) drying.

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): **35**

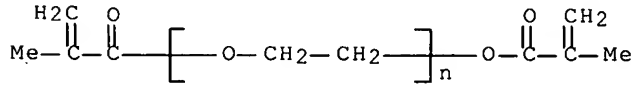
ST process prodn lithog printing plate **copolymer** development

IT **25852-47-5DP**, Polyethylene glycol dimethacrylate, polymer with acryl phosphate 35705-94-3DP, ester, polymer with polyethylene glycol dimethacrylate 86944-80-1P, Methacrylic acid/Polyethylene glycol dimethacrylate **copolymer** 86944-83-4P, Acrylic acid/Polyethylene glycol dimethacrylate **copolymer** 878663-36-6P, Vinylphosphonic acid-Polyethylene glycol dimethacrylate **copolymer** 878663-37-7DP, ester, polymer with polyethylene glycol dimethacrylate **878663-39-9P**, Methacryloylethyl dimethylsulfopropylammonium hydroxide-Polyethylene glycol dimethacrylate **copolymer**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); **PREP (Preparation)**; PROC (Process)
(hydrophilic polymer for process for production of a lithog. printing plate)

IT **25852-47-5DP**, Polyethylene glycol dimethacrylate, polymer with acryl phosphate **878663-39-9P**, Methacryloylethyl dimethylsulfopropylammonium hydroxide-Polyethylene glycol dimethacrylate **copolymer**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); **PREP (Preparation)**; PROC (Process)
(hydrophilic polymer for process for production of a lithog. printing plate)

RN 25852-47-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propen-1-yl)-ω-[(2-methyl-1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)

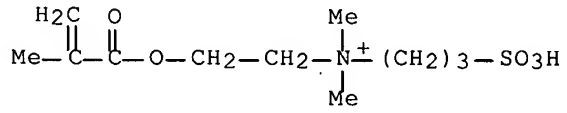


RN 878663-39-9 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, hydroxide, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

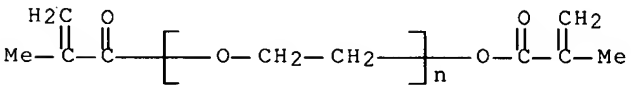
CM 1

CRN 124165-44-2
CMF C11 H22 N O5 S . H O



CM 2

CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3
CCI PMS



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 2 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:190641 HCAPLUS Full-text
DN 144:254964
TI Polyoxyalkylene chain-containing vinyl monomers and their polymers
IN Sakurai, Kenichi
PA Sanyo Chemical Industries Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006057040	A	20060302	JP 2004-242110	20040823 <--
PRAI JP 2004-242110		20040823 <--		

AB The monomers which are scarcely hydrolyzed, are represented by R(OA)nOCH2CHX:CH2 (OA = C2-4 oxyalkylene; n = 1-200; X = CO2H, CO2R', CO2M, CO2NR'4, CONR'2, CN; M = metal; R, R' = H, C1-6 org). The polymers for coating binders, adhesives, **dispersants**, cement additives, scale inhibitors, thickeners, flocculants, etc., contain the monomers and optionally (meth)acrylic acids or their salts. Thus, Me α-hydroxymethylacrylate [prepared from Me acrylate and HCHO] was reacted with **ethylene oxide** to give a polyoxyethylene chain-containing monomer, which was polymerized with acrylic acid and then neutralized with NaOH to give a water-soluble vinyl polymer showing good mortar **dispersibility** even after 2 mo-storage.
CC 37-3 (**Plastics** Manufacture and Processing)
Section cross-reference(s): **35**, **38**, 58, 60
ST polyoxyalkylene chain vinyl monomer polymer hydrolysis resistance; acrylic polyoxyethylene cement additive sludge flocculant water absorbent; polyethylene glycol hydroxymethylacrylate ether macromer acrylic acid **copolymer**
IT **Polyoxyalkylenes, preparation**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft; polyoxyalkylene chain-containing vinyl monomers and their polymers with high hydrolysis resistance)

IT 167763-00-0P, Acrylic acid-**ethylene oxide** graft **copolymer** sodium salt 288371-11-9P, Acrylic acid-**ethylene oxide** graft **copolymer** butyl ether sodium salt 877071-00-6P, Acrylic acid-polyethylene glycol monoether with methyl α-hydroxymethylacrylate graft **copolymer** sodium salt 877071-02-8P, Acrylic acid-polyethylene glycol monoether with α-hydroxymethylacrylonitrile graft **copolymer** sodium salt 877071-03-9P, Acrylic acid-N,N-dimethyl-α-[hydroxyethyl(polyoxyethylene)oxymethyl]acrylamide graft **copolymer** sodium salt 877071-04-0P, Acrylic acid-polyethylene glycol butyl ether methyl α-hydroxymethylacrylate ether graft **copolymer** sodium salt 877071-05-1P, Acrylic acid-α-butoxyethyl(polyoxyethylene)oxymethylacrylonitrile graft **copolymer** sodium salt 877071-06-2P, Acrylic acid-N,N-dimethyl-α-butoxyethyl(polyoxyethylene)oxymethylacrylamide graft **copolymer** sodium salt 877071-07-3P, Acrylic acid-polyethylene glycol mono(2-carboxy-2-propenyl) ether sodium salt graft **copolymer** sodium salt 877071-08-4P, Acrylic acid-polyethylene glycol butyl 2-carboxy-2-propenyl ether sodium salt graft **copolymer** sodium salt
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cement additive; polyoxyalkylene chain-containing vinyl monomers and their polymers with high hydrolysis resistance)

IT **591219-65-7P**, Acrylamide-acryloyloxyethyltrimethylammonium chloride-**ethylene oxide** graft **copolymer** 877071-09-5P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-polyethylene glycol monoether with methyl α-hydroxymethylacrylate graft **copolymer** 877071-10-8P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-polyethylene glycol monoether with α-hydroxymethylacrylonitrile graft **copolymer** 877071-11-9P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-N,N-dimethyl-α-[hydroxyethyl(polyoxyethylene)oxymethyl]acrylamide graft **copolymer** 877071-12-0P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-polyethylene glycol butyl ether methyl α-hydroxymethylacrylate ether graft **copolymer** 877071-13-1P 877071-14-2P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-N,N-dimethyl-α-butoxyethyl(polyoxyethylene)oxymethylacrylamide graft **copolymer** 877071-15-3P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-polyethylene glycol mono(2-carboxy-2-propenyl) ether sodium salt graft **copolymer** 877071-16-4P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-polyethylene glycol butyl 2-carboxy-2-propenyl ether sodium salt graft **copolymer** **877117-69-6P**, Acrylamide-acryloyloxyethyltrimethylammonium chloride-**ethylene oxide** graft **copolymer** butyl ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(flocculant; polyoxyalkylene chain-containing vinyl monomers and their polymers with high hydrolysis resistance)

IT 50-00-0, Formaldehyde, reactions 75-21-8, **Ethylene oxide**, reactions 96-33-3, Methyl acrylate 107-13-1, Acrylonitrile, reactions 2680-03-7, N,N-Dimethylacrylamide 7789-60-8, Phosphorus tribromide 9004-77-7, Polyethylene glycol butyl ether

RL: RCT (Reactant); RACT (Reactant or reagent)
(macromonomer from; polyoxyalkylene chain-containing vinyl monomers and their polymers with high hydrolysis resistance)

IT 877071-18-6P, Acrylic acid-pentaerythritol triallyl ether-polyethylene glycol monoether with methyl α-hydroxymethylacrylate **copolymer** sodium salt 877071-20-0P, Acrylic acid-pentaerythritol triallyl ether-polyethylene glycol monoether with α-hydroxymethylacrylonitrile **copolymer** sodium salt 877071-22-2P, Acrylic acid-N,N-dimethyl-α-[hydroxyethyl(polyoxyethylene)oxymethyl] acrylamide-pentaerythritol triallyl ether **copolymer** sodium salt 877071-24-4P, Acrylic acid-pentaerythritol triallyl ether-polyethylene glycol butyl ether methyl α-hydroxymethylacrylate ether **copolymer** sodium salt 877071-26-6P, Acrylic acid-α-butoxyethyl(polyoxyethylene)oxymethylacrylonitrile-pentaerythritol triallyl ether **copolymer** sodium salt 877071-28-8P, Acrylic acid-N,N-dimethyl-α-butoxyethyl(polyoxyethylene)oxymethylacrylamide-pentaerythritol triallyl ether **copolymer** sodium salt 877071-30-2P, Acrylic acid-pentaerythritol triallyl ether-polyethylene glycol mono(2-carboxy-2-propenyl) ether sodium salt **copolymer** sodium salt 877071-32-4P, Acrylic acid-pentaerythritol triallyl ether-polyethylene glycol butyl 2-carboxy-2-propenyl ether sodium saltt **copolymer** sodium salt
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water absorbent; polyoxyalkylene chain-containing vinyl monomers and their polymers with high hydrolysis resistance)

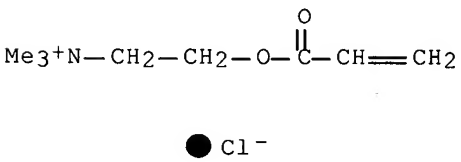
IT **591219-65-7P**, Acrylamide-acryloyloxyethyltrimethylammonium chloride-**ethylene oxide** graft **copolymer** **877117-69-6P**, Acrylamide-acryloyloxyethyltrimethylammonium chloride-**ethylene oxide** graft **copolymer** butyl ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(flocculant; polyoxyalkylene chain-containing vinyl monomers and their polymers with high hydrolysis resistance)

RN 591219-65-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane and 2-propenamide, graft (9CI) (CA INDEX NAME)

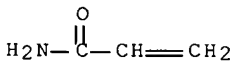
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 2

CRN 79-06-1
CMF C3 H5 N O



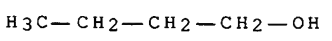
CM 3

CRN 75-21-8
CMF C2 H4 O

RN 877117-69-6 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane and 2-propenamide, butyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 71-36-3
CMF C4 H10 O

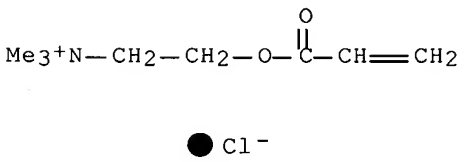


CM 2

CRN 591219-65-7
CMF (C8 H16 N O2 . C3 H5 N O . C2 H4 O . Cl)x
CCI PMS

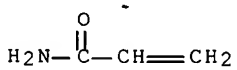
CM 3

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 4

CRN 79-06-1
CMF C3 H5 N O



CM 5

CRN 75-21-8
CMF C2 H4 O

L91 ANSWER 3 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:472201 HCAPLUS Full-text
DN 143:8190
TI **Copolymers** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as **dispersing** agents.
IN Detering, Juergen; Pfeiffer, Thomas; Reddy, Parmod Kakumanu; Song, Xinbei None
PA BASF Aktiengesellschaft, Germany
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005049676	A1	20050602	WO 2004-EP13020	20041117 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2545016	A1	20050602	CA 2004-2545016	20041117 <--
	EP 1687348	A1	20060809	EP 2004-818789	20041117 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	CN 1882623	A	20061220	CN 2004-80034332	20041117 <--
	BR 2004016513	A	20070109	BR 2004-16513	20041117 <--
	JP 2007511654	T	20070510	JP 2006-540300	20041117 <--
	MX 2006PA05446	A	20060725	MX 2006-PA5446	20060515 <--
	US 2007129516	A1	20070607	US 2006-579547	20060516 <--
PRAI	US 2003-523663P	P	20031121 <--		
	WO 2004-EP13020	W	20041117 <--		

AB A **copolymer** having mol. weight 2,000 - 100,000 prepared by polymerization of a mixture containing (a) 60 - 99 weight% ≥1 monoethylenically unsatd. **polyalkylene oxide** monomer, such as polyethylene glycol Me ether methacrylate, (b) 1 - 40 weight% of ≥1 quaternized, dipolar monomer containing N-atom, (c) 0 - 39 weight% of anionic monoethylenically unsatd. monomer, and (d) 0 - 30 weight% of other nonionic monoethylenically unsatd. monomer is used as an additive for washing products (actually as a **dispersant** for removing clay minerals from textile). Thus, a **copolymer** prepared by aqueous polymerization of 34.7 g 40% aqueous solution of 3-methyl-1-vinylimidazolium methylsulfate, 568.8 g of 50% aq.solution of polyethylene glycol Me ether methacrylate and a mixture containing 15 g mercaproethanol and 50 g water at 80° in the presence of initiators gave after treating with H2O2 and heating 30 min at 80° a **copolymer dispersion** having solid content 30.4%, mol. weight 4,600 and pH 4.6 useful as an additive in liquid and solid detergents.

IC ICM C08F220-26
ICS C08F216-14; C11D001-62

CC 35-4 (Chemistry of Synthetic High **Polymers**)

ST **copolymer dispersant** clay mineral additive detergent use; methylvinylimidazolium methylsulfate polyethylene glycol ether methacrylate mercaproethanol **copolymer** manuf

IT Detergents
Dispersing agents
(**copolymer** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as a **dispersant** in detergents for removing clay minerals from textile)

IT Clay minerals
RL: REM (Removal or disposal); PROC (Process)
(**copolymer** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as a **dispersant** in detergents for removing clay minerals from textile)

IT Quaternary ammonium compounds, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(polymers; **copolymer** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as a **dispersant** in detergents for removing clay minerals from textile)

IT **852357-04-1P 852360-66-8P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); **PREP (Preparation)**; USES (Uses)
(**Copolymers** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as **dispersing** agents.)

IT **852357-05-2P 852360-68-0P 852405-36-8P 852405-38-0P 852525-58-7P 852525-60-1P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); **PREP (Preparation)**; USES (Uses)
(**copolymer** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as a **dispersant** in detergents for removing clay minerals from textile)

IT **852357-03-0P** 852360-64-6P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); **PREP (Preparation)**; USES (Uses)
(**copolymer** prepared by polymerization unsatd. **polyalkylene oxide** monomer, quaternized ammonium compds., as **dispersing** agents.)

IT **852357-04-1P 852360-66-8P**

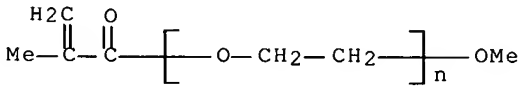
RL: IMF (Industrial manufacture); POF (Polymer in formulation); **PREP (Preparation)**; USES (Uses)
(**Copolymers** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as **dispersing** agents.)

RN 852357-04-1 HCAPLUS

CN 1H-Imidazolium, 1-ethenyl-3-methyl-, methyl sulfate, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

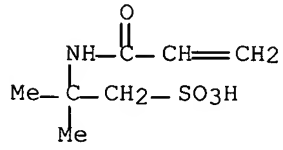
CM 1

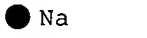
CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 5165-97-9
CMF C7 H13 N O4 S . Na



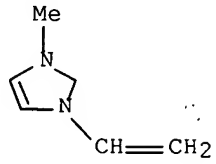


CM 3

CRN 26591-72-0
CMF C6 H9 N2 . C H3 O4 S

CM 4

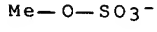
CRN 45534-45-0
CMF C6 H9 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 5

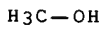
CRN 21228-90-0
CMF C H3 O4 S



RN 852360-66-8 HCAPLUS
CN 1H-Imidazolium, 1-ethenyl-3-methyl-, methyl sulfate, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

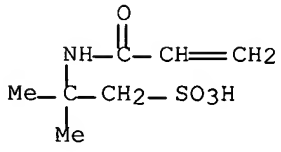


CM 2

CRN 852360-65-7
CMF (C7 H13 N O4 S . C6 H9 N2 . C2 H4 O . C H3 O4 S . Na)x
CCI PMS

CM 3

CRN 5165-97-9
CMF C7 H13 N O4 S . Na



CM 4

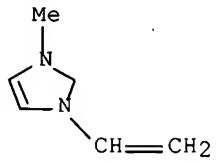
CRN 75-21-8
CMF C2 H4 O

CM 5

CRN 26591-72-0
CMF C6 H9 N2 . C H3 O4 S

CM 6

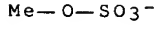
CRN 45534-45-0
CMF C6 H9 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 7

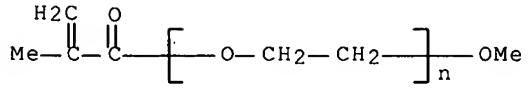
CRN 21228-90-0
CMF C H3 O4 S



IT **852357-05-2P 852360-68-0P 852405-36-8P**
852405-38-0P 852525-58-7P 852525-60-1P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); **PREP (Preparation)**; USES (Uses)
(**copolymer** comprising **polyalkylene oxide** groups and groups with quaternary nitrogen atoms as a **dispersant** in detergents for removing clay minerals from textile)
RN 852357-05-2 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and 2-methyl-2-propenoic acid, graft (9CI) (CA INDEX NAME)

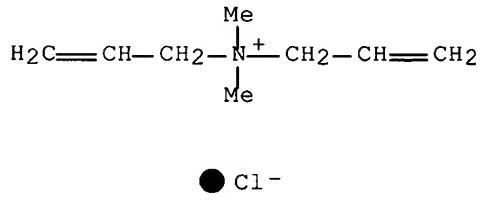
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



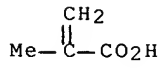
CM 2

CRN 7398-69-8
CMF C8 H16 N . Cl



CM 3

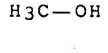
CRN 79-41-4
CMF C4 H6 O2



RN 852360-68-0 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with 2-methyl-2-propenoic acid and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O



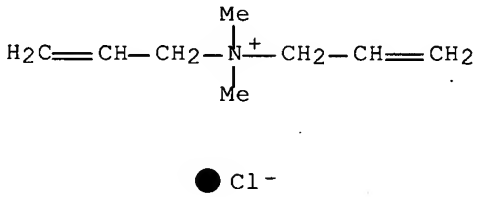
CM 2

CRN 852360-67-9

CMF (C8 H16 N . C4 H6 O2 . C2 H4 O . Cl)x
CCI PMS

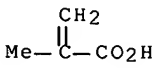
CM 3

CRN 7398-69-8
CMF C8 H16 N . Cl



CM 4

CRN 79-41-4
CMF C4 H6 O2



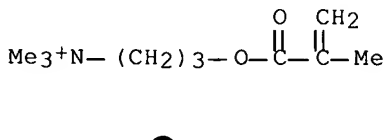
CM 5

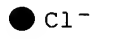
CRN 75-21-8
CMF C2 H4 O

RN 852405-36-8 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

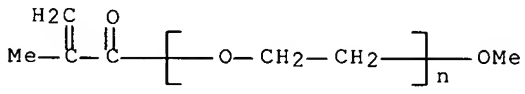
CRN 55918-38-2
CMF C10 H20 N O2 . Cl





CM 2

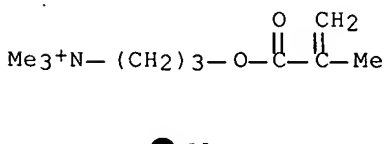
CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS

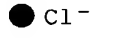


RN 852405-38-0 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

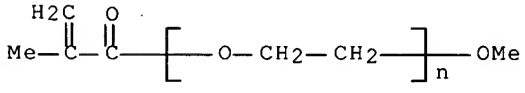
CRN 55918-38-2
CMF C10 H20 N O2 . Cl





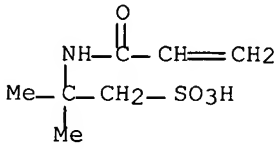
CM 2

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 3

CRN 5165-97-9
CMF C7 H13 N O4 S . Na

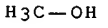


● Na

RN 852525-58-7 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

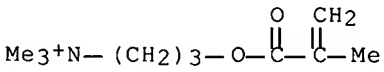


CM 2

CRN 852525-57-6
CMF (C10 H20 N O2 . C2 H4 O . Cl)x
CCI PMS

CM 3

CRN 55918-38-2
CMF C10 H20 N O2 . Cl



● Cl⁻

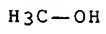
CM 4

CRN 75-21-8
CMF C2 H4 O

RN 852525-60-1 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane and sodium 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonate, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

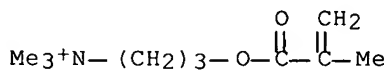


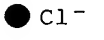
CM 2

CRN 852525-59-8
CMF (C10 H20 N O2 . C7 H13 N O4 S . C2 H4 O . Cl . Na)x
CCI PMS

CM 3

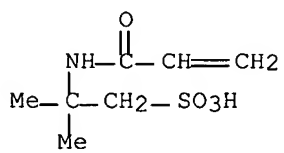
CRN 55918-38-2
CMF C10 H20 N O2 . Cl





CM 4

CRN 5165-97-9
CMF C7 H13 N O4 S . Na



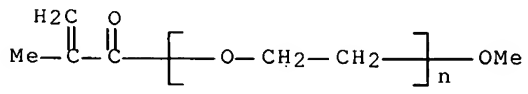
CM 5

CRN 75-21-8
CMF C2 H4 O

IT **852357-03-0P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); **PREP (Preparation)**; USES (Uses)
(**copolymer** prepared by polymerization unsatd. **polyalkylene oxide** monomer, quaternized ammonium compds., as **dispersing** agents.)
RN 852357-03-0 HCAPLUS
CN 1H-Imidazolium, 1-ethenyl-3-methyl-, methyl sulfate, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS

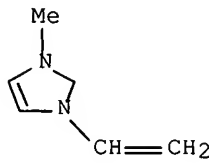


CM 2

CRN 26591-72-0
CMF C6 H9 N2 . C H3 O4 S

CM 3

CRN 45534-45-0
CMF C6 H9 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 4

CRN 21228-90-0
CMF C H3 O4 S

Me—O—SO3-

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 4 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:704850 HCAPLUS Full-text
DN 141:366593
TI Water-Soluble Complexes from Random **Copolymer** and Oppositely Charged Surfactant. 2. Complexes of Poly(ethylene glycol)-Based Cationic Random **Copolymer** and Bile Salts
AU Nisha, C. K.; Manorama, Sunkara V.; Kizhakkedathu, Jayachandran N.; Maiti, Souvik
CS Materials Science Group, Inorganic and Physical Chemistry Division, Indian Institute of Chemical Technology, CSIR, Hyderabad, 500007, India
SO Langmuir (**2004**), 20(20), 8468-8475
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB The complexes formed between the pos. charged random **copolymers** of methoxy-poly(ethylene glycol) monomethacrylate (MePEGMA) and (3-(methacryloylamino)propyl)trimethylammonium chloride (MAPTAC) with oppositely charged biosurfactants (bile salts) were studied using turbidimetric titration, steady-state fluorescence, dynamic light scattering, and electron microscopy. The bile salts used are soluble cholate and sodium deoxycholate. Studies showed that the complexes of the MAPTAC and MePEGMA **copolymers** with less than 68 mol % of PEG content precipitate in water, whereas the complexes of the **copolymer** with 89 and 94 mol % of PEG content do not precipitate in the entire range of composition of the mixture including stoichiometric compns. when the electro-neutral complexes are formed. The complexes with true hydrophobic domains, which are a prerequisite characteristic to serve as a carrier, can be obtained at much lower concentration than the critical micelle concentration of the corresponding surfactant. For a particular surfactant, hydrophobic domains are obtained at lower Z-/+ for the random **copolymer** with lower PEG content. The hydrodynamic radii of these complexes vary over a range of 20-35 nm. Overall results reveal that these complexes are qual. similar to the polyion complex micelles or block ionomer complexes obtained from the block **copolymers** and oppositely charged surfactants. As the surfactants used in this study are bio-compatible, we hope that these soluble particles will be promising vectors in the field of drug delivery.
CC 35-8 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 46, 63
ST polyethylene glycol methacrylate **copolymer** bile salt surfactant complex; methacryloylaminopropyl trimethylammonium chloride polyethylene glycol methacrylate **copolymer** surfactant complex
IT Surfactants
(anionic; preparation and properties of ((methacryloylamino)propyl)trimethyl ammonium chloride-polyethylene glycol monomethyl ether monomethacrylate **copolymer**-bile salt complexes)
IT **Polyoxyalkylenes, preparation**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(graft; preparation and properties of
((methacryloylamino)propyl)trimethylam
monium chloride-polyethylene glycol monomethyl ether monomethacrylate
copolymer-bile salt complexes)

IT Hydrodynamic radius
Ionic conductivity
Particle size
Polymer morphology
Turbidity
Zeta potential
(preparation and properties of ((methacryloylamino)propyl)trimethylammonium
chloride-polyethylene glycol monomethyl ether monomethacrylate
copolymer-bile salt complexes)

IT **779327-75-2P 779327-76-3P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP**
(Preparation)
(preparation and properties of ((methacryloylamino)propyl)trimethylammonium
chloride-polyethylene glycol monomethyl ether monomethacrylate
copolymer-bile salt complexes)

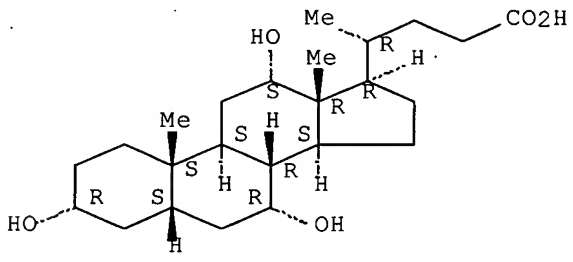
IT **779327-75-2P 779327-76-3P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP**
(Preparation)
(preparation and properties of ((methacryloylamino)propyl)trimethylammonium
chloride-polyethylene glycol monomethyl ether monomethacrylate
copolymer-bile salt complexes)

RN 779327-75-2 HCAPLUS
CN Cholan-24-oic acid, 3,7,12-trihydroxy-, monosodium salt,
(3α,5β,7α,12α)-, compd. with α-(2-methyl-1-
oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) polymer with
N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium
chloride (9CI) (CA INDEX NAME)

CM 1

CRN 361-09-1
CMF C24 H40 O5 . Na

Absolute stereochemistry.



● Na

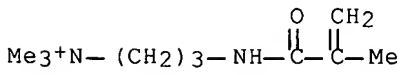
CM 2

CRN 155854-39-0
CMF (C10 H21 N2 O . (C2 H4 O)n C5 H8 O2 . Cl)x

CCI PMS

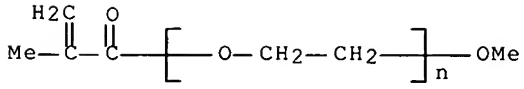
CM 3

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



CM 4

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS

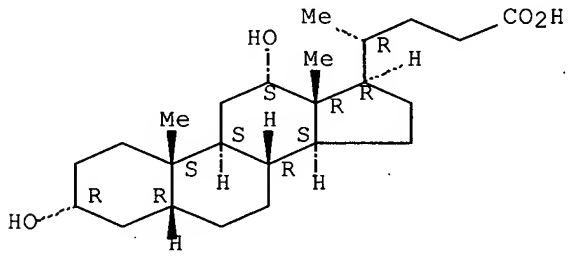


RN 779327-76-3 HCAPLUS
CN Cholan-24-oic acid, 3,12-dihydroxy-, monosodium salt, (3α,5β,12α)-, compd. with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride (9CI) (CA INDEX NAME)

CM 1

CRN 302-95-4
CMF C24 H40 O4 . Na

Absolute stereochemistry.

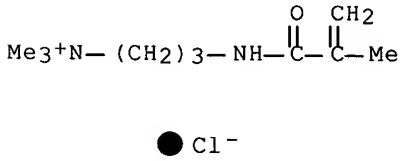


CM 2

CRN 155854-39-0
CMF (C10 H21 N2 O . (C2 H4 O)n C5 H8 O2 . Cl)x
CCI PMS

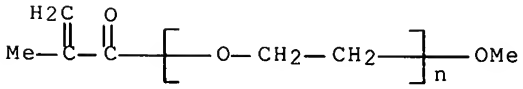
CM 3

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



CM 4

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 5 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:447149 HCAPLUS Full-text
DN 141:8887
TI Liquid detergent compositions with improved **dispersibility** of builder particles and antibacterial properties and their manufacture
IN Takiguchi, Hitoshi; Kozuka, Atsushi
PA Kao Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004155896	A	20040603	JP 2002-322480	20021106 <--
PRAI JP 2002-322480		20021106 <--		

AB The compns. consist of liquid **dispersion** media and solid **dispersoids** containing inorg. builder particles, wherein anionic polymers and cationic polymers, at least one of them bearing polyoxyalkylene units, are contained in the media and/or **dispersoids**. Thus, forming inorg. composite particles from Aqualic DL 384 [poly(acrylic acid) Na salt] 12.5, zeolite 150, and Na2CO3 50

g, adding 40 g of the particles to 60 g of an aqueous medium containing NK Ester M 230G (polyethylene glycol monomethacrylate)-2-(methacryloyloxy)ethyltrimethylammonium chloride **copolymer**, and wet-grinding them gave a **dispersion** showing viscosity 160 mPa-s at 25° and good **dispersibility** after 1 mo and detergency against mud.

IC ICM C11D003-37
ICS C11D003-10; C11D003-12; C11D017-08

CC 46-5 (Surface Active Agents and Detergents)
Section cross-reference(s): **38**

ST liq detergent carbonate builder particle **dispersibility**; anionic polymer builder composite detergency mud; cationic polymer **dispersion** medium antibacterial detergent

IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft, **dispersion** medium; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT Polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(block, anionic or cationic, **dispersion** medium or **dispersoid**; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT Aluminosilicates, uses
Carbonates, uses
Silicates, uses
Zeolites (synthetic), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(builder, composite with anionic or cationic polymer; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT Polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(graft, anionic or cationic, **dispersion** medium or **dispersoid**; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT Detergent builders
Detergents
Dispersing agents
(manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(quaternary ammonium-containing, **dispersion** medium; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT 9003-04-7, Poly(acrylic acid) sodium salt
RL: TEM (Technical or engineered material use); USES (Uses)
(Aqualic DL 384, composite with builder particles; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT 497-19-8, Sodium carbonate, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(builder, composite with anionic or cationic polymer; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT 223267-39-8P, **Ethylene oxide**-maleic anhydride graft **copolymer** 240140-92-5P, Polyethylene glycol allyl ether-maleic anhydride graft **copolymer**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(composite with builder particles; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT 26062-79-3, Merquat 100
RL: TEM (Technical or engineered material use); USES (Uses)
(composite with builder particles; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

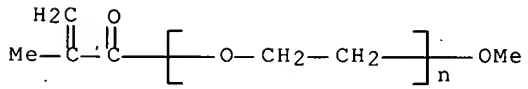
IT 207567-81-5P 247104-41-2P **347423-62-5P 501930-16-1P 501931-39-1P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(**dispersion** medium; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

IT **347423-62-5P 501930-16-1P 501931-39-1P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(**dispersion** medium; manufacture of liquid detergents containing anionic and cationic polymers with improved **dispersibility**, antibacterial properties, and detergency against mud)

RN 347423-62-5 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

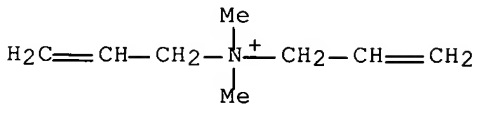
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

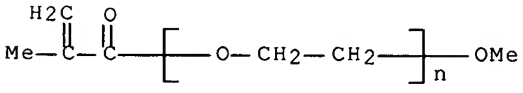
CRN 7398-69-8
CMF C8 H16 N . Cl



RN 501930-16-1 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-, chloride (1:1), polymer with α-(2-methyl-1-oxo-2-propen-1-yl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (CA INDEX NAME)

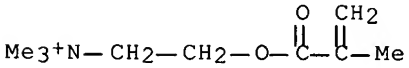
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



RN 501931-39-1 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-, chloride (1:1), polymer with oxirane, methyl ether, graft (CA INDEX NAME)

CM 1

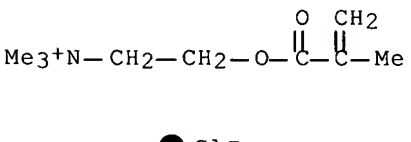
CRN 67-56-1
CMF C H4 O

CM 2

CRN 194717-69-6
CMF (C9 H18 N O2 . C2 H4 O . Cl)x
CCI PMS

CM 3

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 4

CRN 75-21-8
CMF C2 H4 O

L91 ANSWER 6 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:179938 HCAPLUS Full-text
DN 140:222895
TI O/W emulsions containing amphiphilic polymers, and their manufacture
IN Kaizu, Kazuhiro; Sugai, Ichiro
PA Kao Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004067581	A	20040304	JP 2002-228680	20020806 <--
PRAI	JP 2002-228680		20020806 <--		

AB Amphiphilic polymers, which can be dissolved or **dispersed** in water-soluble organic solvents, are water-insol., and form micelles in H2O, are dissolved or **dispersed** in water-soluble organic solvents, mixed with oily components, and then mixed with H2O to give O/W emulsions, useful for cosmetics. 2-Ethyl-2-oxazoline was refluxed in EtOAc in the presence of Et2SO4, and the resulting poly(N-propionylethylenimine) having reactive end groups was refluxed with polydimethylsiloxane having primary aminopropyl side chains in EtOAc to give 97% N-propionylethylenimine- dimethylsiloxane **copolymer** (I). I (0.50 weight%) was dissolved in 1.00 weight% tris[2-(2-ethoxyethoxy)ethyl] phosphate at 80°, mixed with 0.50 weight% Silicone KF-96A (Me polysiloxane), mixed with 98.00

weight% H2O, and the mixture was cooled to give an O/W emulsion showing particle size 171 nm, viscosity <100 mPa-s, and no sticky feeling.

IC ICM A61K007-00

CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): **37**

ST amphiphilic polymer emulsion manuf cosmetic; ethyloxazoline polysiloxane **copolymer** solvent emulsion cosmetic

IT **Polyoxyalkylenes, biological studies**
RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acrylic, graft; manufacture of O/W emulsions containing amphiphilic polymers)

IT **Polyoxyalkylenes, biological studies**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(solvent; manufacture of O/W emulsions containing amphiphilic polymers)

IT 25805-17-8DP, 2-Ethyl-2-oxazoline homopolymer, polymers with aminopropyl group-containing Me polysiloxanes 69488-61-5DP, Poly(N-propionylethyleneimine), sru, polymers with aminopropyl group-containing Me polysiloxanes **664372-47-8P** 664372-48-9P **664965-54-2P**, N,N-Dimethylaminoethyl methacrylate diethyl sulfate-dodecyl methacrylate-**ethylene oxide** graft **copolymer** methyl ether
RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(manufacture of O/W emulsions containing amphiphilic polymers)

IT 56-81-5, Glycerin, biological studies 57-55-6, Propylene glycol, biological studies 64-17-5, Ethanol, biological studies 107-21-1, Ethylene glycol, biological studies 107-88-0, 1,3-Butylene glycol 2568-33-4, Isoprene glycol 7332-49-2, Tris[2-(2-ethoxyethoxy)ethyl] phosphate 25265-71-8, Dipropylene glycol **25322-68-3**, Polyethylene glycol 53026-67-8, Ethoxylated methyl glucoside 59113-36-9, Diglycerin
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(solvent; manufacture of O/W emulsions containing amphiphilic polymers)

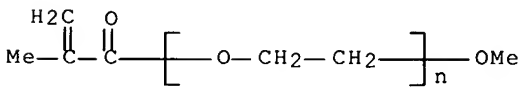
IT **664372-47-8P 664965-54-2P**, N,N-Dimethylaminoethyl methacrylate diethyl sulfate-dodecyl methacrylate-**ethylene oxide** graft **copolymer** methyl ether
RL: COS (Cosmetic use); IMF (Industrial manufacture); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(manufacture of O/W emulsions containing amphiphilic polymers)

RN 664372-47-8 HCAPLUS

CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with dodecyl 2-methyl-2-propenoate and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

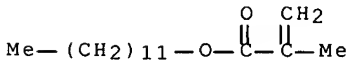
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 142-90-5
CMF C16 H30 O2

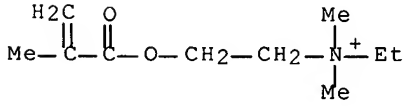


CM 3

CRN 13223-03-5
CMF C10 H20 N O2 . C2 H5 O4 S

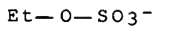
CM 4

CRN 48063-69-0
CMF C10 H20 N O2



CM 5

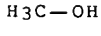
CRN 48028-76-8
CMF C2 H5 O4 S



RN 664965-54-2 HCAPLUS
CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with dodecyl 2-methyl-2-propenoate and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

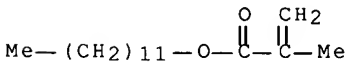


CM 2

CRN 664965-53-1
CMF (C16 H30 O2 . C10 H20 N O2 . C2 H5 O4 S . C2 H4 O)x
CCI PMS

CM 3

CRN 142-90-5
CMF C16 H30 O2



CM 4

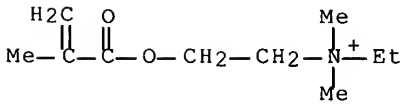
CRN 75-21-8
CMF C2 H4 O

CM 5

CRN 13223-03-5
CMF C10 H20 N O2 . C2 H5 O4 S

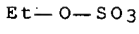
CM 6

CRN 48063-69-0
CMF C10 H20 N O2



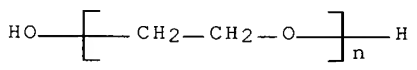
CM 7

CRN 48028-76-8
CMF C2 H5 O4 S



IT **25322-68-3**, Polyethylene glycol

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(solvent; manufacture of O/W emulsions containing amphiphilic polymers)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L91 ANSWER 7 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:913200 HCAPLUS Full-text
DN 139:382952
TI Process for preparing polymer **dispersion** for papermaking
IN Struck, Oliver; Przybyla, Christian; Sieger, Achim; Hahn, Mathias; Ruppelt, Dirk; Jaeger, Werner
PA Akzo Nobel N.V., Neth.; Eka Chemicals Ab
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003095501	A1	20031120	WO 2003-SE726	20030506 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003230523	A1	20031111	AU 2003-230523	20030506 <--
	CA 2485288	A1	20031120	CA 2003-2485288	20030506 <--
	EP 1501876	A1	20050202	EP 2003-723594	20030506 <--
	EP 1501876	B1	20070711		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003011432	A	20050322	BR 2003-11432	20030506 <--
	CN 1653091	A	20050810	CN 2003-810202	20030506 <--
	JP 2005524741	T	20050818	JP 2004-503514	20030506 <--
	RU 2281294	C2	20060810	RU 2004-135557	20030506 <--
	AT 366751	T	20070815	AT 2003-723594	20030506 <--
	MX 2004PA10532	A	20050620	MX 2004-PA10532	20041025 <--
	ZA 2004008972	A	20051116	ZA 2004-8972	20041105 <--
	NO 2004005346	A	20050207	NO 2004-5346	20041206 <--
PRAI	EP 2002-445055	A	20020507 <--		
	WO 2003-SE726	W	20030506 <--		

AB The process comprises polymerizing ≥1 water-soluble monomer (e.g., acrylamide and acryloxyethyldimethylbenzylammonium chloride) in an aqueous solution of salt in the presence of a **dispersant** polymer (e.g., diallyldimethylammonium chloride-acryloxyethyltrimethylammonium chloride-polyethylene glycol Me ether acrylate **copolymer**), wherein the **dispersant** polymer is a **copolymer** of a monomer mixture comprising ≥1 cationic monomer and ≥1 monomer containing

tetrahydrofurfuryl acrylate, tetrahydrofurfuryl methacrylate, or a monomer CH2:C(R1)COO[(CH2)nCH(R2)O]xR3 (R1 = H, Me; R2 = H, C1-2 alkyl; R3 = H, C1-4 alkyl, Ph, benzyl; n = 1-4; x = 1- 50), and the monomer mixture is free from monomers which are not soluble in water and/or the **dispersant** polymer is obtainable by polymerizing the monomer mixture in a reaction medium which is substantially free from organic solvents.

IC ICM C08F002-20
ICS D21H021-10

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): **37**

ST acrylamide acryloxyethyldimethylbenzylammonium chloride **copolymer** **dispersion** papermaking; polymer **dispersant** polyacrylic **dispersion** prepn

IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(acrylic, **dispersants**; process for preparing polymer **dispersion** for papermaking)

IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(acrylic, graft, **dispersants**; process for preparing polymer **dispersion** for papermaking)

IT **Dispersing** agents
Paper
(process for preparing polymer **dispersion** for papermaking)

IT **620531-01-3P**, Acryloyloxyethyltrimethylammonium chloride-diallyldimethylammonium chloride-polyethylene glycol methyl ether acrylate **copolymer** **620531-03-5P** 620531-05-7P 620531-06-8P **624722-87-8P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; process for preparing polymer **dispersion** for papermaking)

IT 74153-51-8, Acrylamide-acryloyloxyethyldimethylbenzylammonium chloride **copolymer**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(process for preparing polymer **dispersion** for papermaking)

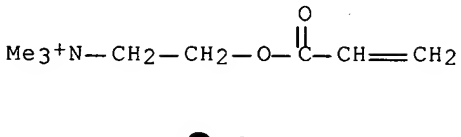
IT **620531-01-3P**, Acryloyloxyethyltrimethylammonium chloride-diallyldimethylammonium chloride-polyethylene glycol methyl ether acrylate **copolymer** **620531-03-5P** **624722-87-8P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; process for preparing polymer **dispersion** for papermaking)

RN 620531-01-3 HCAPLUS

CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

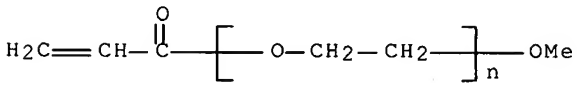
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



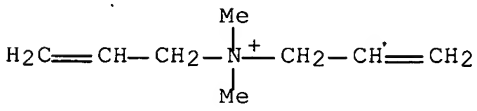
CM 2

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 3

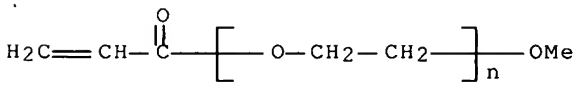
CRN 7398-69-8
CMF C8 H16 N . Cl



RN 620531-03-5 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

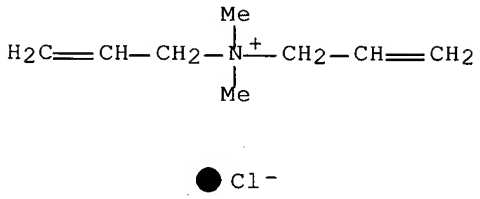
CM 1

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 2

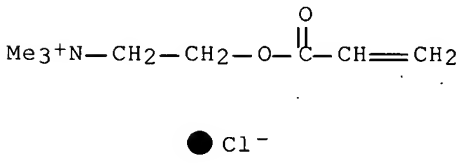
CRN 7398-69-8
CMF C8 H16 N . Cl



RN 624722-87-8 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

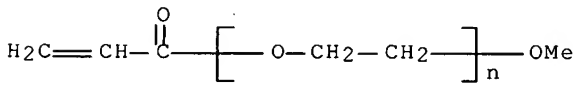
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 2

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 8 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:841038 HCAPLUS Full-text
DN 139:343493
TI Manufacture of ink-jet printing sheet with phosphorescent pigment layer
IN Kamimori, Isao; Yukawa, Yoshiyuki; Hoshida, Yuko
PA Kansai Paint Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003305941	A	20031028	JP 2002-110895	20020412 <--
PRAI	JP 2002-110895		20020412 <--		

AB The sheet is manufactured by (1) forming a layer containing a phosphorescent pigment or a light interference pigment, (2) ink-jet printing by aqueous ink, and (3) forming a clear-coat layer thereon. Printed material is also claimed. Phosphorescent image is obtained when the phosphorescent pigment is used, and the sheet shows good weatherability and is useful for outdoor use such as a traffic sign and a signboard.

IC ICM B41M005-00
ICS B41J002-01; C09D005-22; C09D005-29; C09D011-00; C09D201-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): **38**

IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT **Dispersing** agents
Ink-jet printing
Ink-jet recording sheets
(manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT **412304-01-9P** 412304-12-2P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-methyl methacrylate-NF Bisomer S 20W graft **copolymer** 616228-01-4P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-methyl methacrylate-oxirane graft **copolymer** methyl ether 616228-02-5P, Butyl acrylate-2-hydroxyethyl acrylate-2-methacryloyloxyethyltrimethylammonium chloride-methyl methacrylate-oxirane graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(ink-fixing resin; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT 616227-45-3P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-2-(2'-Hydroxy-5'-(2-methacryloyloxyethyl)phenyl)benzotriazole-methyl methacrylate-NF Bisomer S 20W graft **copolymer** 616227-46-4P, Butyl methacrylate-N,N-dimethylaminoethyl methacrylate-2-(2'-Hydroxy-5'-(2-methacryloyloxyethyl)phenyl)benzotriazole-methyl methacrylate-NF Bisomer S 20W graft **copolymer** 616227-47-5P 616228-04-7P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-2-(2'-hydroxy-5'-(2-methacryloyloxyethyl)phenyl)benzotriazole-methyl methacrylate-oxirane graft **copolymer** methyl ether 616228-06-9P, Butyl acrylate-2-hydroxyethyl acrylate-2-(2'-hydroxy-5'-methacryloyloxyethylphenyl)-2H-benzotriazole-2-methacryloyloxyethyltrimethylammonium chloride-methyl methacrylate-oxirane graft **copolymer** methyl ether 616228-08-1P, Butyl methacrylate-N,N-dimethylaminoethyl methacrylate-2-(2'-hydroxy-5'-methacryloyloxyethylphenyl)-2H-benzotriazole-methyl methacrylate-oxirane graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pigment **dispersant**; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT **412304-01-9P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

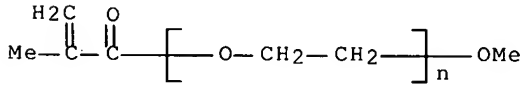
(ink-fixing resin; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

RN 412304-01-9 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

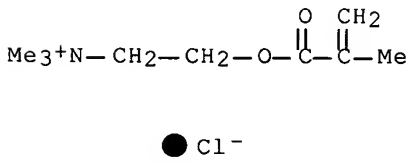
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



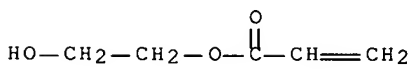
CM 2

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



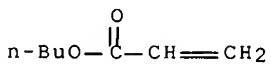
CM 3

CRN 818-61-1
CMF C5 H8 O3



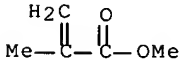
CM 4

CRN 141-32-2
CMF C7 H12 O2



CM 5

CRN 80-62-6
CMF C5 H8 O2



L91 ANSWER 9 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:772711 HCAPLUS Full-text
DN 140:5361
TI Direct Synthesis of Well-Defined Quaternized Homopolymers and Diblock **Copolymers** via ATRP in Protic Media
AU Li, Yuting; Armes, Steven P.; Jin, Xiaoping; Zhu, Shiping
CS Department of Chemistry, School of Life Sciences, University of Sussex, Falmer, Brighton, BN1 9QJ, UK
SO Macromolecules (**2003**), 36(22), 8268-8275
CODEN: MAMOBX; ISSN: 0024-9297
PB American Chemical Society
DT Journal
LA English
AB The direct synthesis of well-defined cationic homopolymers and block **copolymers** based on Me chloride-quaternized 2-(dimethylamino)ethyl methacrylate [MeDMA] by ATRP (atom transfer radical polymerization) in protic media at 20° is described. Homopolymn. of MeDMA in purely aqueous media was fast and poorly controlled, leading to a relatively high polydispersity of 1.37 and low initiation efficiency. Addition of Cu(II)Br2 led to slower polymns. but only slightly lower polydispersities. Addition of methanol also reduced the rate of polymerization and produced narrower mol. weight distributions. Unfortunately, 1H NMR studies indicated that transesterification of MeDMA with methanol produced significant quantities of Me methacrylate (MMA) on the time scale of the polymerization; this side reaction led to the unwanted production of MeDMA-MMA statistical **copolymers**. This problem was alleviated by replacing the methanol cosolvent with 2-propanol, since the secondary alc. was much less prone to transesterification. High conversions were obtained with a 1:1 2-propanol/water composition within a few hours at 20°, but partial phase separation occurred toward the end of the polymerization, particularly at higher monomer concentration Although nonlinear kinetic plots were observed, final polydispersities were relatively low (ranging from 1.19 to 1.27, according to aqueous GPC studies), and good self-blocking efficiencies were demonstrated in chain extension expts. A range of new cationic diblock **copolymers** were prepared either by using a poly(**ethylene oxide**)-based macroinitiator or via sequential monomer addition with various hydrophilic methacrylates such as glycerol monomethacrylate, [2-(methacryloyloxy)ethyl]phosphorylcholine, the benzyl chloride-quaternized analog of MeDMA, and the sulfobetaine adduct of the reaction of 2-(dimethylamino)ethyl methacrylate with 1,3-propane sultone, [2-(methacryloyloxy)ethyl]dimethyl-(3-sulfopropyl)ammonium hydroxide. Potential

applications for these cationic diblock **copolymers** include novel gene/oligonucleotide transfer agents and also polymeric templates for the catalytic formation of silica in aqueous solution under mild conditions.

CC 35-4 (Chemistry of Synthetic High **Polymers**)

ST methacrylate quaternized homopolymer block **copolymer** atom transfer radical polymn

IT Polymerization
Polymerization catalysts
(atom transfer, radical; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT Solvent effect
(direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 36347-52-1P, [2-(Methacryloyloxy)ethyl]trimethylammonium chloride-methyl methacrylate **copolymer**
RL: BYP (Byproduct); PREP (Preparation)
(byproduct; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 7787-70-4, Copper bromide (CuBr)
RL: CAT (Catalyst use); USES (Uses)
(catalyst; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT **202148-53-6P, Ethylene oxide**
-[2-(methacryloyloxy)ethyl]trimethylammonium chloride block **copolymer** 546071-89-0P 627106-71-2P 627106-72-3P 627106-73-4P 725211-44-9P 725211-45-0P 725211-57-4P 725713-15-5P **741674-96-4P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(diblock; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 26161-33-1P, [2-(Methacryloyloxy)ethyl]trimethylammonium chloride homopolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 627106-74-5
RL: CAT (Catalyst use); USES (Uses)
(initiator; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 366-18-7, 2,2'-Bipyridine
RL: CAT (Catalyst use); USES (Uses)
(ligand; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 67-56-1, Methanol, uses 67-63-0, 2-Propanol, uses 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT **202148-53-6P, Ethylene oxide**
-[2-(methacryloyloxy)ethyl]trimethylammonium chloride block **copolymer 741674-96-4P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(diblock; direct synthesis of well-defined quaternized homopolymers and

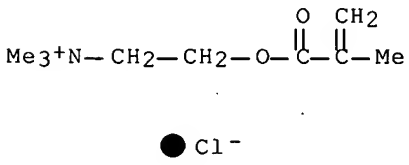
diblock **copolymers** via atom transfer radical polymerization in protic media)

RN 202148-53-6 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 2

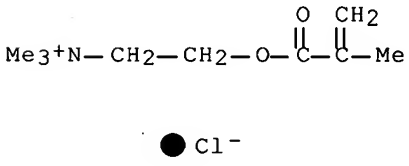
CRN 75-21-8
CMF C2 H4 O

RN 741674-96-4 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, diblock (9CI) (CA INDEX NAME)

CM 1

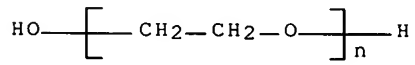
CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 2

CRN 75-21-8
CMF C2 H4 O

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(solvent; manufacture of O/W emulsions containing amphiphilic polymers)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L91 ANSWER 7 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:913200 HCAPLUS Full-text
DN 139:382952
TI Process for preparing polymer **dispersion** for papermaking
IN Struck, Oliver; Przybyla, Christian; Sieger, Achim; Hahn, Mathias; Ruppelt, Dirk; Jaeger, Werner
PA Akzo Nobel N.V., Neth.; Eka Chemicals Ab
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003095501	A1	20031120	WO 2003-SE726	20030506 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003230523	A1	20031111	AU 2003-230523	20030506 <--
	CA 2485288	A1	20031120	CA 2003-2485288	20030506 <--
	EP 1501876	A1	20050202	EP 2003-723594	20030506 <--
	EP 1501876	B1	20070711		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003011432	A	20050322	BR 2003-11432	20030506 <--
	CN 1653091	A	20050810	CN 2003-810202	20030506 <--
	JP 2005524741	T	20050818	JP 2004-503514	20030506 <--
	RU 2281294	C2	20060810	RU 2004-135557	20030506 <--
	AT 366751	T	20070815	AT 2003-723594	20030506 <--
	MX 2004PA10532	A	20050620	MX 2004-PA10532	20041025 <--
	ZA 2004008972	A	20051116	ZA 2004-8972	20041105 <--
	NO 2004005346	A	20050207	NO 2004-5346	20041206 <--
PRAI	EP 2002-445055	A	20020507	<--	
	WO 2003-SE726	W	20030506	<--	

AB The process comprises polymerizing ≥1 water-soluble monomer (e.g., acrylamide and acryloxyethyldimethylbenzylammonium chloride) in an aqueous solution of salt in the presence of a **dispersant** polymer (e.g., diallyldimethylammonium chloride-acryloxyethyltrimethylammonium chloride-polyethylene glycol Me ether acrylate **copolymer**), wherein the **dispersant** polymer is a **copolymer** of a monomer mixture comprising ≥1 cationic monomer and ≥1 monomer containing

tetrahydrofurfuryl acrylate, tetrahydrofurfuryl methacrylate, or a monomer CH2:C(R1)COO[(CH2)nCH(R2)O]xR3 (R1 = H, Me; R2 = H, C1-2 alkyl; R3 = H, C1-4 alkyl, Ph, benzyl; n = 1-4; x = 1- 50), and the monomer mixture is free from monomers which are not soluble in water and/or the **dispersant** polymer is obtainable by polymerizing the monomer mixture in a reaction medium which is substantially free from organic solvents.

IC ICM C08F002-20
ICS D21H021-10

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): **37**

ST acrylamide acryloxyethyldimethylbenzylammonium chloride **copolymer dispersion** papermaking; polymer **dispersant** polyacrylic **dispersion** prepn

IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(acrylic, **dispersants**; process for preparing polymer **dispersion** for papermaking)

IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(acrylic, graft, **dispersants**; process for preparing polymer **dispersion** for papermaking)

IT **Dispersing** agents
Paper
(process for preparing polymer **dispersion** for papermaking)

IT **620531-01-3P**, Acryloyloxyethyltrimethylammonium chloride-diallyldimethylammonium chloride-polyethylene glycol methyl ether acrylate **copolymer 620531-03-5P** 620531-05-7P 620531-06-8P **624722-87-8P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; process for preparing polymer **dispersion** for papermaking)

IT 74153-51-8, Acrylamide-acryloyloxyethyldimethylbenzylammonium chloride **copolymer**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(process for preparing polymer **dispersion** for papermaking)

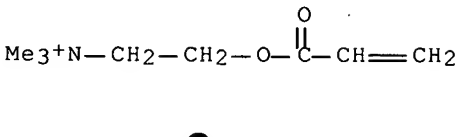
IT **620531-01-3P**, Acryloyloxyethyltrimethylammonium chloride-diallyldimethylammonium chloride-polyethylene glycol methyl ether acrylate **copolymer 620531-03-5P 624722-87-8P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; process for preparing polymer **dispersion** for papermaking)

RN 620531-01-3 HCAPLUS

CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

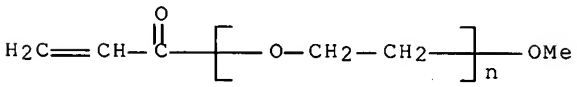
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



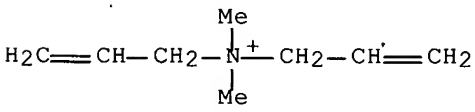
CM 2

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 3

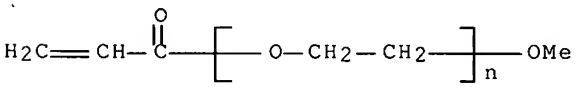
CRN 7398-69-8
CMF C8 H16 N . Cl



RN 620531-03-5 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

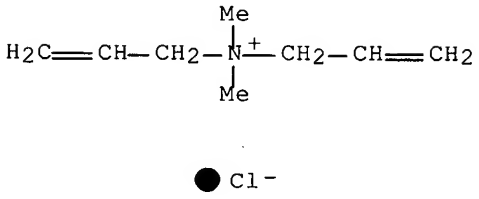
CM 1

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 2

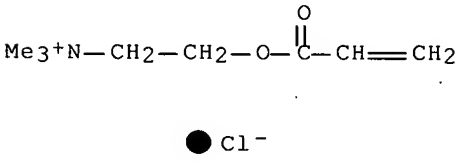
CRN 7398-69-8
CMF C8 H16 N . Cl



RN 624722-87-8 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

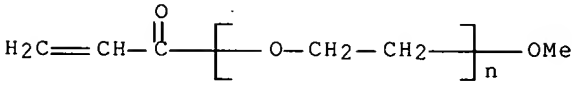
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 2

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 8 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:841038 HCAPLUS Full-text
DN 139:343493
TI Manufacture of ink-jet printing sheet with phosphorescent pigment layer
IN Kamimori, Isao; Yukawa, Yoshiyuki; Hoshida, Yuko
PA Kansai Paint Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003305941	A	20031028	JP 2002-110895	20020412 <--
PRAI	JP 2002-110895		20020412 <--		

AB The sheet is manufactured by (1) forming a layer containing a phosphorescent pigment or a light interference pigment, (2) ink-jet printing by aqueous ink, and (3) forming a clear-coat layer thereon. Printed material is also claimed. Phosphorescent image is obtained when the phosphorescent pigment is used, and the sheet shows good weatherability and is useful for outdoor use such as a traffic sign and a signboard.

IC ICM B41M005-00
ICS B41J002-01; C09D005-22; C09D005-29; C09D011-00; C09D201-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT **Dispersing** agents
Ink-jet printing
Ink-jet recording sheets
(manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT **412304-01-9P** 412304-12-2P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-methyl methacrylate-NF Bisomer S 20W graft **copolymer** 616228-01-4P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-methyl methacrylate-oxirane graft **copolymer** methyl ether 616228-02-5P, Butyl acrylate-2-hydroxyethyl acrylate-2-methacryloyloxyethyltrimethylammonium chloride-methyl methacrylate-oxirane graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(ink-fixing resin; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT 616227-45-3P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-2-(2'-Hydroxy-5'-(2-methacryloyloxyethyl)phenyl)benzotriazole-methyl methacrylate-NF Bisomer S 20W graft **copolymer** 616227-46-4P, Butyl methacrylate-N,N-dimethylaminoethyl methacrylate-2-(2'-Hydroxy-5'-(2-methacryloyloxyethyl)phenyl)benzotriazole-methyl methacrylate-NF Bisomer S 20W graft **copolymer** 616227-47-5P 616228-04-7P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-2-hydroxyethyl acrylate-2-(2'-hydroxy-5'-(2-methacryloyloxyethyl)phenyl)benzotriazole-methyl methacrylate-oxirane graft **copolymer** methyl ether 616228-06-9P, Butyl acrylate-2-hydroxyethyl acrylate-2-(2'-hydroxy-5'-methacryloyloxyethylphenyl)-2H-benzotriazole-2-methacryloyloxyethyltrimethylammonium chloride-methyl methacrylate-oxirane graft **copolymer** methyl ether 616228-08-1P, Butyl methacrylate-N,N-dimethylaminoethyl methacrylate-2-(2'-hydroxy-5'-methacryloyloxyethylphenyl)-2H-benzotriazole-methyl methacrylate-oxirane graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pigment **dispersant**; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

IT **412304-01-9P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

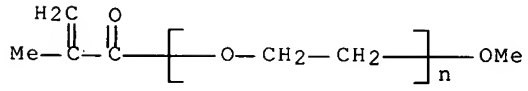
(ink-fixing resin; manufacture of ink-jet printing sheet with phosphorescent pigment layer)

RN 412304-01-9 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

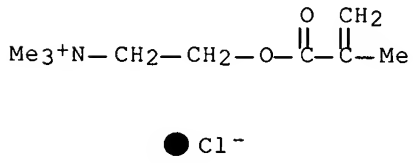
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



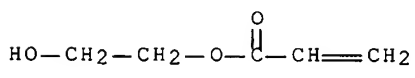
CM 2

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



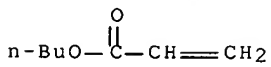
CM 3

CRN 818-61-1
CMF C5 H8 O3



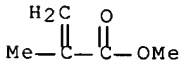
CM 4

CRN 141-32-2
CMF C7 H12 O2



CM 5

CRN 80-62-6
CMF C5 H8 O2



L91 ANSWER 9 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:772711 HCAPLUS Full-text
DN 140:5361
TI Direct Synthesis of Well-Defined Quaternized Homopolymers and Diblock **Copolymers** via ATRP in Protic Media
AU Li, Yuting; Armes, Steven P.; Jin, Xiaoping; Zhu, Shiping
CS Department of Chemistry, School of Life Sciences, University of Sussex, Falmer, Brighton, BN1 9QJ, UK
SO Macromolecules (**2003**), 36(22), 8268-8275
CODEN: MAMOBX; ISSN: 0024-9297
PB American Chemical Society
DT Journal
LA English
AB The direct synthesis of well-defined cationic homopolymers and block **copolymers** based on Me chloride-quaternized 2-(dimethylamino)ethyl methacrylate [MeDMA] by ATRP (atom transfer radical polymerization) in protic media at 20° is described. Homopolymn. of MeDMA in purely aqueous media was fast and poorly controlled, leading to a relatively high polydispersity of 1.37 and low initiation efficiency. Addition of Cu(II)Br2 led to slower polymns. but only slightly lower polydispersities. Addition of methanol also reduced the rate of polymerization and produced narrower mol. weight distributions. Unfortunately, 1H NMR studies indicated that transesterification of MeDMA with methanol produced significant quantities of Me methacrylate (MMA) on the time scale of the polymerization; this side reaction led to the unwanted production of MeDMA-MMA statistical **copolymers**. This problem was alleviated by replacing the methanol cosolvent with 2-propanol, since the secondary alc. was much less prone to transesterification. High conversions were obtained with a 1:1 2-propanol/water composition within a few hours at 20°, but partial phase separation occurred toward the end of the polymerization, particularly at higher monomer concentration Although nonlinear kinetic plots were observed, final polydispersities were relatively low (ranging from 1.19 to 1.27, according to aqueous GPC studies), and good self-blocking efficiencies were demonstrated in chain extension expts. A range of new cationic diblock **copolymers** were prepared either by using a poly(**ethylene oxide**)-based macroinitiator or via sequential monomer addition with various hydrophilic methacrylates such as glycerol monomethacrylate, [2-(methacryloyloxy)ethyl]phosphorylcholine, the benzyl chloride-quaternized analog of MeDMA, and the sulfobetaine adduct of the reaction of 2-(dimethylamino)ethyl methacrylate with 1,3-propane sultone, [2-(methacryloyloxy)ethyl]dimethyl-(3-sulfopropyl)ammonium hydroxide. Potential

applications for these cationic diblock **copolymers** include novel gene/oligonucleotide transfer agents and also polymeric templates for the catalytic formation of silica in aqueous solution under mild conditions.

CC 35-4 (Chemistry of Synthetic High **Polymers**)

ST methacrylate quaternized homopolymer block **copolymer** atom transfer radical polymn

IT Polymerization
Polymerization catalysts
(atom transfer, radical; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT Solvent effect
(direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 36347-52-1P, [2-(Methacryloyloxy)ethyl]trimethylammonium chloride-methyl methacrylate **copolymer**
RL: BYP (Byproduct); PREP (Preparation)
(byproduct; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 7787-70-4, Copper bromide (CuBr)
RL: CAT (Catalyst use); USES (Uses)
(catalyst; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT **202148-53-6P, Ethylene oxide**
-[2-(methacryloyloxy)ethyl]trimethylammonium chloride block **copolymer** 546071-89-0P 627106-71-2P 627106-72-3P 627106-73-4P 725211-44-9P 725211-45-0P 725211-57-4P 725713-15-5P **741674-96-4P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(diblock; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 26161-33-1P, [2-(Methacryloyloxy)ethyl]trimethylammonium chloride homopolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 627106-74-5
RL: CAT (Catalyst use); USES (Uses)
(initiator; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 366-18-7, 2,2'-Bipyridine
RL: CAT (Catalyst use); USES (Uses)
(ligand; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT 67-56-1, Methanol, uses 67-63-0, 2-Propanol, uses 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; direct synthesis of well-defined quaternized homopolymers and diblock **copolymers** via atom transfer radical polymerization in protic media)

IT **202148-53-6P, Ethylene oxide**
-[2-(methacryloyloxy)ethyl]trimethylammonium chloride block **copolymer 741674-96-4P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(diblock; direct synthesis of well-defined quaternized homopolymers and

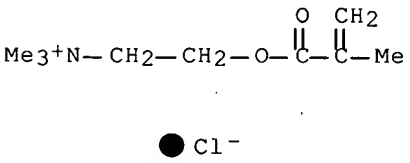
diblock **copolymers** via atom transfer radical polymerization in protic media)

RN 202148-53-6 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 2

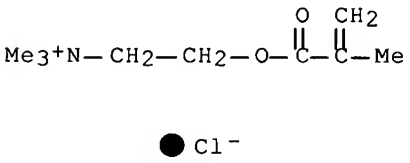
CRN 75-21-8
CMF C2 H4 O

RN 741674-96-4 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 2

CRN 75-21-8
CMF C2 H4 O

RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 10 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:698061 HCAPLUS Full-text
DN 140:42629
TI Poly(**ethylene oxide**) macromonomer-grafted polymer nanoparticles synthesised by emulsifier-free emulsion polymerisation
AU Liu, Zuifang; Xiao, Huining; Wiseman, Nicholas; Zheng, Anna
CS Department of Paper Science, UMIST, Manchester, M60 1QD, UK
SO Colloid and Polymer Science (**2003**), 281(9), 815-822
CODEN: CPMSB6; ISSN: 0303-402X
PB Springer-Verlag
DT Journal
LA English
AB Ultrafine polymer nanoparticles based on poly(**ethylene oxide**) (PEO) macromonomer-grafted polystyrene (PS) have been synthesized by emulsifier-free emulsion polymerization In addition to the binary **copolymn**. between PEO macromonomer and styrene, ternary **copolymns**. were also conducted in the presence of a cationic monomer (2-(methacryloyloxy)ethyl) trimethylammonium chloride (MATMAC) as a second comonomer. The size and charge characteristics of fine nanoparticles were characterized using both photon correlation spectroscopy and transmission electron microscopy techniques as well as colloidal titration After PEO chains (repeat unit 9 or higher) were incorporated into the PS latex, the particle size was significantly reduced owing to the steric effect contributed from grafted PEO chains. Ternary **copolymn**. using MATMAC as comonomer further reduced the particle size, leading to nanoparticles as small as 60 nm. Increasing the MATMAC feed ratio gradually reduced the final size of the nanoparticle, owing to the enhancement in electrostatic stabilization, whereas increasing the PEO macromonomer feed ratios led to slightly larger particles but significantly inhibited the agglomeration of primary particles. The formation mechanism of the nano- or microparticles with various sizes during polymerization is discussed in terms of nucleation, agglomeration and adsorption of primary particles.
CC 35-8 (Chemistry of Synthetic High **Polymers**)
ST **polyethylene oxide** macromonomer grafted polymer nanoparticle
IT Polymerization
(emulsion; poly(**ethylene oxide**) macromonomer-grafted polymer nanoparticles synthesized by emulsifier-free emulsion polymerization)
IT Nanoparticles
Particle size
Particle size distribution
Polymer morphology
(poly(**ethylene oxide**) macromonomer-grafted polymer nanoparticles synthesized by emulsifier-free emulsion polymerization)
IT **Polyoxyalkylenes, preparation**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polystyrene-, graft; poly(**ethylene oxide**) macromonomer-grafted polymer nanoparticles synthesized by emulsifier-free emulsion polymerization)
IT **635311-43-2P 635316-65-3P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**

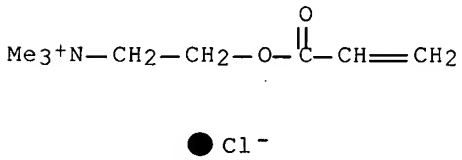
(poly(**ethylene oxide**) macromonomer-grafted polymer nanoparticles synthesized by emulsifier-free emulsion polymerization)

IT **635311-43-2P 635316-65-3P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(poly(**ethylene oxide**) macromonomer-grafted polymer nanoparticles synthesized by emulsifier-free emulsion polymerization)

RN 635311-43-2 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

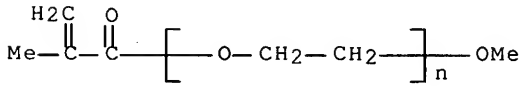
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



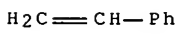
CM 2

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 3

CRN 100-42-5
CMF C8 H8

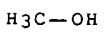


RN 635316-65-3 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1

CMF C H4 O

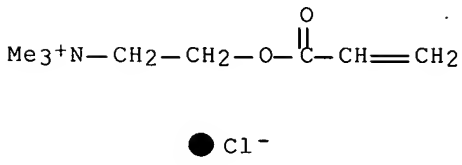


CM 2

CRN 635316-64-2
CMF (C8 H16 N O2 . C8 H8 . C2 H4 O . Cl)x
CCI PMS

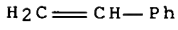
CM 3

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 4

CRN 100-42-5
CMF C8 H8



CM 5

CRN 75-21-8
CMF C2 H4 O

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 11 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:591047 HCAPLUS Full-text
DN 139:150723
TI Film-forming antimicrobial compositions for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics

IN Wang, Danli; Scholz, Matthew T.; Zhu, Dong-wei; Lu, Triet M.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003061721	A1	20030731	WO 2002-US38951	20021205 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003194415	A1	20031016	US 2002-52158	20020116 <--
	US 6838078	B2	20050104		
	CA 2473841	A1	20030731	CA 2002-2473841	20021205 <--
	EP 1465676	A1	20041013	EP 2002-792331	20021205 <--
	EP 1465676	B1	20070815		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	BR 2002015518	A	20041221	BR 2002-15518	20021205 <--
	JP 2005520812	T	20050714	JP 2003-561661	20021205 <--
	MX 2004PA06839	A	20041206	MX 2004-PA6839	20040714 <--
	NO 2004003297	A	20041007	NO 2004-3297	20040806 <--
	US 2005025794	A1	20050203	US 2004-922262	20040819 <--
PRAI	US 2002-52158	A	20020116 <--		
	WO 2002-US38951	W	20021205 <--		

AB The title compns. comprise: (A) a water-soluble or water-**dispersible** vinyl polymer having amine group on side-chains, and a **copolymd.** hydrophobic monomer; (B) water, (C) a surfactant, and (D) an active agent selected from antimicrobial agent, a pharmaceutical or a cosmetic agent. Thus, polymerizing 2-ethylhexyl acrylate with Ageflex FA 1Q80M (acryloyloxyethyltrimethylammonium chloride) and AM 90G (polyethylene glycol Me ether acrylate) in ratio of 75/20/5 gave an A, 5% of which was mixed with 7.5% Povidone-iodine USP (antimicrobial agent), 5% Polystep B 22 (surfactant), 3.3% ethano, 6% lactic acid and balance water to give a title composition (pH 3.5-4) showing good human skin antimicrobial activity result.

IC ICM A61L026-00
ICS A61K009-70; A01N033-12
CC 38-3 (**Plastics** Fabrication and Uses)
Section cross-reference(s): 10, 62, 63
IT **Polyoxyalkylenes, uses**
RL: BUU (Biological use, unclassified); COS (Cosmetic use); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
(acrylate-terminated, polymers; water-soluble polymer in film-forming antimicrobial compns. for tissue and skin antisepsis)
IT **Polyoxyalkylenes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(phosphono-terminated, surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)
IT **Polyoxyalkylenes, uses**

RL: NUU (Other use, unclassified); USES (Uses)
(sulfo-terminated, surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)

IT **9005-00-9**, Brij 700
RL: NUU (Other use, unclassified); USES (Uses)
(Brij 76, surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)

IT **106392-12-5**, Pluronic F 127
RL: NUU (Other use, unclassified); USES (Uses)
(Pluronic L 64, L 68, P 65, surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)

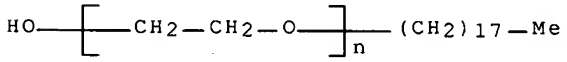
IT **568592-93-8P**, Ageflex FA 1Q80MC-AM 90G-2-ethylhexyl acrylate graft **copolymer** 568592-95-0P 569676-28-4P
RL: BUU (Biological use, unclassified); COS (Cosmetic use); IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepns. of water-soluble polymer in film-forming antimicrobial compns. for tissue and skin antisepsis)

IT 139-96-8, Stepanol WAT 1643-20-5, Ammonyx LO **9004-82-4**, Steol CS 330 **9004-95-9**, Brij 58 **9005-64-5**, Nikkol TL 10 **9016-45-9**, Surfonic N 150 9051-57-4, Rhodapex CO 436 25542-86-3, 2-Hexyldecyl sodium sulfate 50643-20-4, Crodafos SG 57762-93-3, Hostapon CT 59952-82-8, Polystep A 16 94200-74-5, Isofol 12S 367266-04-4, Alphastep PC 48 570413-52-4, Mackam 50SB 570413-80-8, Witconate 60T
RL: NUU (Other use, unclassified); USES (Uses)
(surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)

IT **9005-00-9**, Brij 700
RL: NUU (Other use, unclassified); USES (Uses)
(Brij 76, surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)

RN 9005-00-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-octadecyl-ω-hydroxy- (CA INDEX NAME)



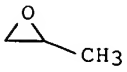
IT **106392-12-5**, Pluronic F 127
RL: NUU (Other use, unclassified); USES (Uses)
(Pluronic L 64, L 68, P 65, surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)

RN 106392-12-5 HCAPLUS

CN Oxirane, 2-methyl-, polymer with oxirane, block (CA INDEX NAME)

CM 1

CRN 75-56-9
CMF C3 H6 O



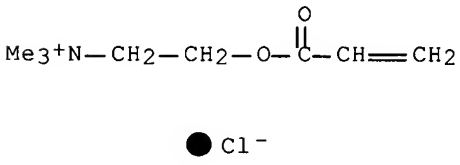
CM 2

CRN 75-21-8
CMF C2 H4 O

IT **568592-93-8P**, Ageflex FA 1Q80MC-AM 90G-2-ethylhexyl acrylate graft **copolymer**
RL: BUU (Biological use, unclassified); COS (Cosmetic use); IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepns. of water-soluble polymer in film-forming antimicrobial compns. for tissue and skin antisepsis)
RN 568592-93-8 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-ethylhexyl 2-propenoate and α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

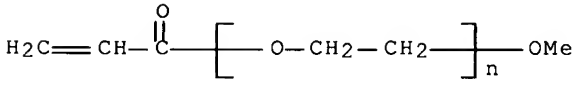
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



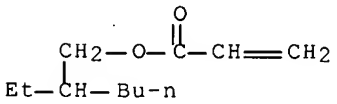
CM 2

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS

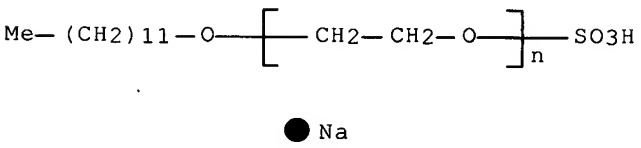


CM 3

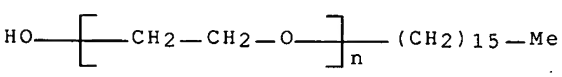
CRN 103-11-7
CMF C11 H20 O2



IT **9004-82-4**, Steol CS 330 **9004-95-9**, Brij 58
9005-64-5, Nikkol TL 10 **9016-45-9**, Surfonic N 150
RL: NUU (Other use, unclassified); USES (Uses)
(surfactant; in film-forming antimicrobial compns. for tissue and skin antisepsis used in topical pharmaceutical products and cosmetics)
RN 9004-82-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-sulfo-ω-(dodecyloxy)-, sodium salt (1:1) (CA INDEX NAME)

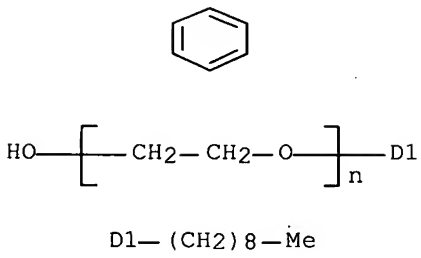


RN 9004-95-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hexadecyl-ω-hydroxy- (CA INDEX NAME)



RN 9005-64-5 HCAPLUS
CN Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9016-45-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy- (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 12 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:559075 HCAPLUS Full-text
DN 139:122450
TI Storage-stable resin particles containing functional metal oxides, their manufacture, and cosmetics containing them
IN Sasaki, Yasushi
PA Kao Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003206405	A	20030722	JP 2002-5702	20020115 <--
	JP 3898060	B2	20070328		
	WO 2003060014	A1	20030724	WO 2003-JP272	20030115 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003201888	A1	20030730	AU 2003-201888	20030115 <--
PRAI	JP 2002-5702	A	20020115 <--		
	WO 2003-JP272	W	20030115 <--		

AB Cosmetics contain metal oxide-containing resin particles having ΔT(%) = transmittance(%) (550 nm) - transmittance(%) (350 nm) (transmittance is measured for aqueous **dispersions** containing the resin particles at metal oxide concentration 0.01 weight%), prepared by **dispersion** of metal oxides in H2O and/or monomer solns. in the presence of **dispersing** agents and reverse-phase suspension or emulsion polymerization of monomers in nonaq. solvents in the presence of the resulting **dispersions** and polymerization initiators. Finex 75 (ZnO) was **dispersed** in H2O containing Na polyacrylate, the resulting **dispersion** was mixed with dimethylacrylamide 20, aqueous solution containing 80% N,N-dimethylaminoethyl methacrylate di-Et sulfate 50, NK-14G (polyethylene glycol dimethacrylate) 0.02, and 2,2'-azobis(2-amidinopropane)-2HCl 0.15 g, the resulting ZnO-monomer **dispersion** was mixed with hexane containing KF 861 (amino-modified silicone), and the mixture was heated at 50-55° for 1 h to give white resin particles showing average particle size of ZnO 0.6 μm,

average particle size of resin particles 4.9 μm, and ΔT(%) 35. A cosmetic emulsion containing the resin particles gave a good feel to the skin and showed no precipitation or separation after 1-mo storage at 20°.

IC ICM C08L101-00
ICS A61K007-00; A61K007-48; A61K007-50; C08F002-20; C08F002-22; C08F002-44; C08F220-34; C08F220-60; C08F226-02; C08K003-22; C08L033-14; C08L033-26; C08L039-00

CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 37

IT **Polyoxyalkylenes, biological studies**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acrylic, crosslinked; manufacture of storage-stable resin particles containing metal oxides for cosmetics)

IT **Dispersing** agents
Human
Sunscreens
UV shields
(manufacture of storage-stable resin particles containing metal oxides for cosmetics)

IT 9003-04-7, Sodium polyacrylate 9003-39-8, Poly(vinylpyrrolidone) 9004-34-6D, Cellulose, cationic derivs. 151031-02-6, Kachicel M 80
RL: NUU (Other use, unclassified); USES (Uses)
(**dispersant**; manufacture of storage-stable resin particles containing metal oxides for cosmetics)

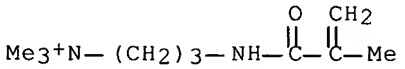
IT **218129-29-4P**, Dimethylacrylamide-MAPTAC-polyethylene glycol dimethacrylate **copolymer 269735-77-5P**, Dimethylacrylamide-N,N-dimethylaminoethyl methacrylate diethyl sulfate-NK 14G **copolymer**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(manufacture of storage-stable resin particles containing metal oxides for cosmetics)

IT **218129-29-4P**, Dimethylacrylamide-MAPTAC-polyethylene glycol dimethacrylate **copolymer 269735-77-5P**, Dimethylacrylamide-N,N-dimethylaminoethyl methacrylate diethyl sulfate-NK 14G **copolymer**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(manufacture of storage-stable resin particles containing metal oxides for cosmetics)

RN 218129-29-4 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with N,N-dimethyl-2-propenamide and α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

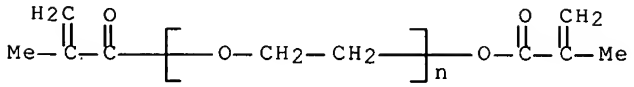
CM 1

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



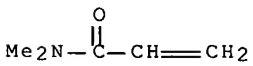
CM 2

CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3
CCI PMS



CM 3

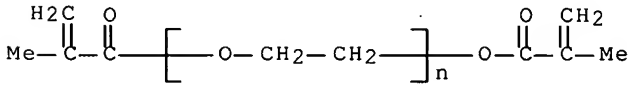
CRN 2680-03-7
CMF C5 H9 N O



RN 269735-77-5 HCAPLUS
CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-, ethyl sulfate (1:1), polymer with N,N-dimethyl-2-propenamide and α-(2-methyl-1-oxo-2-propen-1-yl)-ω-[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl) (CA INDEX NAME)

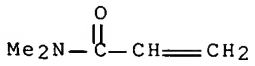
CM 1

CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3
CCI PMS



CM 2

CRN 2680-03-7
CMF C5 H9 N O

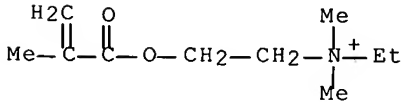


CM 3

CRN 13223-03-5
CMF C10 H20 N O2 . C2 H5 O4 S

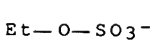
CM 4

CRN 48063-69-0
CMF C10 H20 N O2



CM 5

CRN 48028-76-8
CMF C2 H5 O4 S



L91 ANSWER 13 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:216786 HCAPLUS Full-text
DN 138:245651
TI Yellowing-resistant ink-jet printing sheets containing cationic polymers in ink-receiving layers
IN Tsujibata, Shigetomo; Nakano, Ryoichi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003080838	A	20030319	JP 2001-279265	20010914 <--
PRAI JP 2001-279265		20010914 <--		

AB The sheets have ink receptor layers which are formed from **dispersions** containing containing microparticulate inorg. pigments (e.g., silica, pseudo boehmite), (meth)acrylate polymers having CH2CR1[Q(R2O)m(R3O)nR4] (R1 = H, Me; R2, R3 = alkylene; R4 = H, C1-18 alkyl, aryl, aralkyl, OCOR'; Q = CO2, CONR", O (R', R" = H, alkyl, aralkyl, aryl); m, n ≥ 1) and units having cationic groups, and optionally water-soluble resins such as PVA.

IC ICM B41M005-00
ICS B41J002-01; C09D125-18; C09D129-04; C09D129-10; C09D133-14; C09D133-24; C09D139-00; C09D165-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): **38**, 43

IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft, actionic, ink receptor layers; light- and blurring-resistant ink-jet receptor sheets containing polyoxyalkylene-grafted cationic polymers)

IT **501931-39-1DP**, Dimethylaminoethyl methacrylate methochloride-oxirane graft **copolymer** methyl ether, Me ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(light- and blurring-resistant ink-jet receptor sheets containing polyoxyalkylene-grafted cationic polymers)

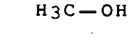
IT 142517-79-1P, Boric acid-vinyl alcohol **copolymer**
501930-16-1P, Methoxypolyethylene glycol monomethacrylate-Light Ester DQ 100 graft **copolymer** **501931-34-6P**, Methoxypolyethylene glycol monomethacrylate-trimethylvinylbenzylammonium chloride graft **copolymer** 501931-41-5P, Oxirane-trimethylvinylbenzylammonium chloride graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(receptor layers; light- and blurring-resistant ink-jet receptor sheets containing polyoxyalkylene-grafted cationic polymers)

IT **501931-39-1DP**, Dimethylaminoethyl methacrylate methochloride-oxirane graft **copolymer** methyl ether, Me ether
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(light- and blurring-resistant ink-jet receptor sheets containing polyoxyalkylene-grafted cationic polymers)

RN 501931-39-1 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-, chloride (1:1), polymer with oxirane, methyl ether, graft (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

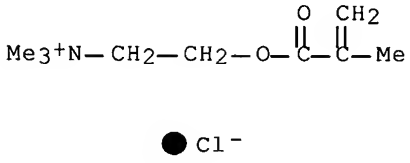


CM 2

CRN 194717-69-6
CMF (C9 H18 N O2 . C2 H4 O . Cl)x
CCI PMS

CM 3

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 4

CRN 75-21-8
CMF C2 H4 O

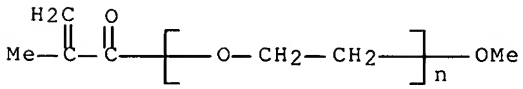
IT **501930-16-1P**, Methoxypolyethylene glycol monomethacrylate-Light Ester DQ 100 graft **copolymer 501931-34-6P**, Methoxypolyethylene glycol monomethacrylate-trimethylvinylbenzylammonium chloride graft **copolymer**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(receptor layers; light- and blurring-resistant ink-jet receptor sheets containing polyoxyalkylene-grafted cationic polymers)

RN 501930-16-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-, chloride (1:1), polymer with α-(2-methyl-1-oxo-2-propen-1-yl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (CA INDEX NAME)

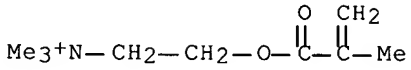
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

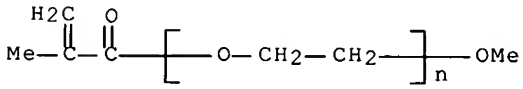
CRN 5039-78-1
CMF C9 H18 N O2 . Cl



RN 501931-34-6 HCAPLUS
CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

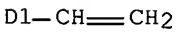
CM 1

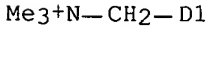
CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 26616-35-3
CMF C12 H18 N . Cl
CCI IDS





L91 ANSWER 14 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:211459 HCAPLUS Full-text
DN 138:402220
TI Synthesis and characterization of cationic polymeric salts: Derivatives of 2-(dimethylamino)ethyl-2-methacrylate, containing oligomeric **ethylene oxide** side-chains
AU Stalgren, J. J. R.; Pamedytyte, V.; Makuska, R.; Claesson, P. M.; Brown, W.; Jacobsson, U.
CS Department of Chemistry, Surface Chemistry, Royal Institute of Technology,

Stockholm, SE-100 44, Swed.
SO Polymer International (2003), 52(3), 399-405
CODEN: PLYIEI; ISSN: 0959-8103
PB John Wiley & Sons Ltd.
DT Journal
LA English
AB A novel set of cationic polyelectrolytes has been prepared The polyelectrolytes have a high cationicity with each segment carrying one pos. charged quaternary ammonium group. The polyelectrolytes also contain grafted oligo(**ethylene oxide**) (EO) chains. The grafted EO chains are, according to NMR measurements, six units long. The graft d. of EO chains has been varied and polymers having approx. 100%, 20% and 10% of the segments with a grafted EO chain have been prepared The obtained products were characterized using 1H and 13C NMR spectroscopy. Aqueous solns. of the cationic polymers were characterized by dynamic light-scattering (DLS) measurements. It was found to be important to include a radical inhibitor to prevent crosslinking reactions during isolation and purification In general the DLS measurements showed a bimodal size distribution. The majority of the polymers (about 75 wt%) were found to have a hydrodynamic radius of 6-8 nm, with the remaining polymers being dominated by a fraction with a hydrodynamic radius in the range 120-140 nm.
CC 35-4 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): **36**
ST dimethylaminoethyl methacrylate **ethylene oxide** graft **copolymer** cationic salt polyelectrolyte
IT **Polyoxyalkylenes, preparation**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(acrylic, graft; synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)
IT **Polyoxyalkylenes, reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)
IT Hydrodynamic radius
Polyelectrolytes
Polymerization
Relaxation
(synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)
IT 52137-03-8P 73342-17-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)
IT 91485-36-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)
IT 532438-49-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oligomeric, macromonomer; synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)

IT 106-94-5, Propyl bromide 2867-47-2, 2-(Dimethylamino)ethyl methacrylate **25322-68-3**, Polyethylene glycol
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)

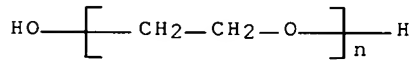
IT 532438-50-9P **532438-51-0P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)

IT 27252-69-3P 76779-16-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)

IT **25322-68-3**, Polyethylene glycol
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



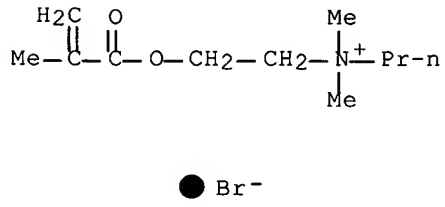
IT **532438-51-0P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(synthesis and characterization of cationic polymeric salts of 2-(dimethylamino)ethyl-2-methacrylate derivs. containing oligomeric **ethylene oxide** side-chains)

RN 532438-51-0 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, bromide, polymer with oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 91485-36-8
CMF C11 H22 N O2 . Br



CM 2

CRN 75-21-8
CMF C2 H4 O

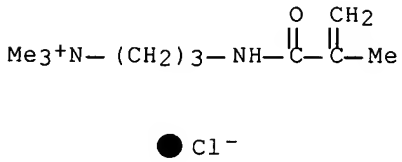
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 15 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:148439 HCAPLUS Full-text
DN 138:338662
TI Water-Soluble Complexes from Random **Copolymer** and Oppositely Charged Surfactant. 1. Complexes of Poly(ethylene glycol)-Based Cationic Random **Copolymer** and Sodium Dodecyl Sulfate
AU Nisha, C. K.; Basak, Pratyay; Manorama, Sunkara V.; Maiti, Souvik; Jayachandran, Kizhakkedathu N.
CS Materials Science Group, Inorganic and Physical Chemistry Division, Indian Institute of Chemical Technology CSIR, Hyderabad, 500007, India
SO Langmuir (**2003**), 19(7), 2947-2955
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB We investigate the complex formation behavior of random **copolymers** (RCPs) of methoxy polyethylene glycol monomethacrylate (MePEGMA) and (3-(methacryloylamino)propyl)trimethylammonium chloride (MAPTAC) with oppositely charged surfactant sodium dodecyl sulfate (SDS), which could be used as a potential system in the field of drug/gene delivery research. A series of **copolymers** from MePEGMA and cationic monomer MAPTAC was synthesized and characterized by 1H NMR and static light scattering techniques. The complexation of SDS with synthesized cationic RCPs was investigated by turbidimetric titration, steady-state fluorescence, light scattering, particle size anal., and ζ-potential measurement. Studies revealed that these complexes are qual. similar to the polyion complex micelles or block ionomer complexes obtained from the block **copolymers** and oppositely charged surfactants. The complexes obtained appear to be micelle-like aggregates with a core formed by the dodecyl sulfate neutralized cationic unit of the polymer and a shell of threaded polyethylene glycol units. The formation of hydrophobic domains occurs at an SDS concentration which is about 2 orders of magnitude lower than its critical micelle concentration **Copolymers** with higher polyethylene glycol content form hydrophobic domains at higher SDS concentration The solution behavior of these complexes mainly depends on the composition of cationic and nonionic units present in the **copolymers**. Complexes with stoichiometric compns. of cationic units of the **copolymer** and SDS are electroneutral. The sizes of the complexes vary from 30 to 70 nm depending on the **copolymer** and the composition The polarity index obtained from the pyrene fluorescence experiment shows that they are highly hydrated. Overall, these complexes represent an addnl. class of lyophilic colloids that could be used as a promising system in addressing various basic and practical problems in drug delivery challenges.
CC 35-8 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 46, 63
ST polyethylene glycol methacrylate **copolymer** anionic surfactant complex; sodium dodecyl sulfate methacrylate **copolymer** complex; methacryloylaminopropyl trimethylammonium chloride **copolymer**

complex surfactant
IT Surfactants
(anionic; preparation and properties of ((methacryloylamino)propyl)trimethyl ammonium chloride-polyethylene glycol monomethyl ether monomethacrylate **copolymer**-sodium dodecyl sulfate complex)
IT **Polyoxyalkylenes, preparation**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(graft; preparation and properties of ((methacryloylamino)propyl)trimethylam monium chloride-polyethylene glycol monomethyl ether monomethacrylate **copolymer**-sodium dodecyl sulfate complex)
IT Radius of gyration
Refractive index
Second virial coefficient
Turbidity
(of ((methacryloylamino)propyl)trimethylammonium chloride-polyethylene glycol monomethyl ether monomethacrylate **copolymer**)
IT Hydrodynamic radius
Polymer morphology
Zeta potential
(of ((methacryloylamino)propyl)trimethylammonium chloride-polyethylene glycol monomethyl ether monomethacrylate **copolymer** complex with sodium dodecyl sulfate)
IT Fluorescence
Particle size
(of ((methacryloylamino)propyl)trimethylammonium chloride-polyethylene glycol monomethyl ether monomethacrylate **copolymer**-sodium dodecyl sulfate complex)
IT Polarity
(polarity index; of ((methacryloylamino)propyl)trimethylammonium chloride-polyethylene glycol monomethyl ether monomethacrylate **copolymer**-sodium dodecyl sulfate complex)
IT **515146-32-4P**, (3-(Methacryloylamino)propyl)trimethylammonium chloride-polyethylene glycol monomethyl ether monomethacrylate graft **copolymer 515146-33-5P 515867-10-4P**, **Ethylene oxide**-(3-(methacryloylamino)propyl)trimethylamm onium chloride graft **copolymer** methyl ether **515867-11-5P** , **Ethylene oxide**-(3-(methacryloylamino)propyl)trimethy lammonium chloride graft **copolymer** methyl ether-sodium dodecyl sulfate complex
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and characterization of)
IT **515146-32-4P**, (3-(Methacryloylamino)propyl)trimethylammonium chloride-polyethylene glycol monomethyl ether monomethacrylate graft **copolymer 515146-33-5P 515867-10-4P**, **Ethylene oxide**-(3-(methacryloylamino)propyl)trimethylamm onium chloride graft **copolymer** methyl ether **515867-11-5P** , **Ethylene oxide**-(3-(methacryloylamino)propyl)trimethy lammonium chloride graft **copolymer** methyl ether-sodium dodecyl sulfate complex
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and characterization of)
RN 515146-32-4 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propen-1-yl)amino]-, chloride (1:1), polymer with α-(2-methyl-1-oxo-2-propen-1-yl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (CA INDEX NAME)

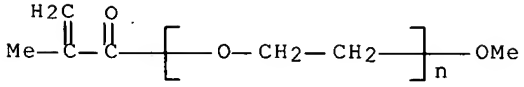
CM 1

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



CM 2

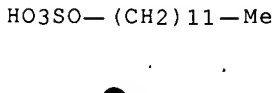
CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



RN 515146-33-5 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft, compd. with sodium dodecyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 151-21-3
CMF C12 H26 O4 S . Na

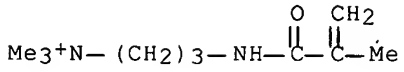


CM 2

CRN 515146-32-4
CMF (C10 H21 N2 O . (C2 H4 O)n C5 H8 O2 . Cl)x
CCI PMS

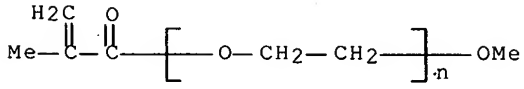
CM 3

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



CM 4

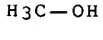
CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



RN 515867-10-4 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propen-1-yl)amino]-, chloride (1:1), polymer with oxirane, methyl ether, graft (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

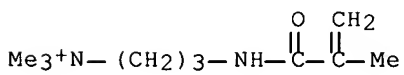


CM 2

CRN 515867-09-1
CMF (C10 H21 N2 O . C2 H4 O . Cl)x
CCI PMS

CM 3

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



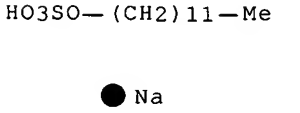
CM 4

CRN 75-21-8
CMF C2 H4 O

RN 515867-11-5 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with oxirane, methyl ether, graft, compd. with sodium dodecyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 151-21-3
CMF C12 H26 O4 S . Na

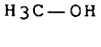


CM 2

CRN 515867-10-4
CMF (C10 H21 N2 O . C2 H4 O . Cl)x . x C H4 O

CM 3

CRN 67-56-1
CMF C H4 O

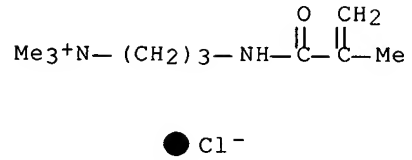


CM 4

CRN 515867-09-1
CMF (C10 H21 N2 O . C2 H4 O . Cl)x
CCI PMS

CM 5

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



CM 6

CRN 75-21-8
CMF C2 H4 O

RE.CNT 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 16 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:111091 HCAPLUS Full-text
DN 138:153959
TI Water soluble polymer **dispersings** and their production method
IN Takeda, Hisao; Sugiyama, Toshiaki
PA Hymo Corporation, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003041135	A	20030213	JP 2001-226013	20010726 <--
PRAI JP 2001-226013		20010726 <--		

AB Title **dispersions** useful for flocculants comprise water soluble particles selected from cationic, nonionic, and amphoteric polymers with particle diameter ≤100 μm in an aqueous salt solution and aqueous salt solution-soluble graft **copolymers** having a side chain represented by (CHR1CH2O)nR2 as **dispersing** agents, wherein R1 = H, or methyl; R2 = H, C1-3 alkyl; and n = 1-50 integer. Thus, acryloyloxyethyltrimethylammonium chloride and polyoxyethylene glycol methacrylate were polymerized to give an aqueous 30% graft **copolymer** with cationic monomer rate 70 mol%, mol. weight 800,000, and ion equivalent 2.43 meq/g, 67.4 g 50% aqueous acrylamide and 115.0 g 80% aqueous acryloyloxyethyltrimethylammonium chloride were polymerized in the presence of the resulting 20.8 g graft **copolymer** to give a polymer **dispersion** with viscosity 150 mPa-s, particle size ≤10 μm, and weight average mol. weight 8,000,000.

IC ICM C08L101-14
ICS B01F017-42; C08F002-20; C08F212-14; C08F220-34; C08F220-56; C08F220-58; C08F220-60; C08F226-02; C08F228-02; C08F290-06; C08L101-06
CC 35-4 (Chemistry of Synthetic High **Polymers**)
ST water soluble polymer **dispersings** prepn; acryloyloxyethyltrimethylammonium chloride polyoxyethylene glycol methacrylate graft **copolymer dispersing** agent;

acrylamide acryloyloxyethyltrimethylammonium chloride **copolymer dispersion** prepn

IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(acrylic, graft, **dispersing** agents; preparation of water soluble polymer **dispersings** in presence of graft **copolymer dispersing** agents)

IT **Dispersing** agents
(preparation of water soluble polymer **dispersings** in presence of graft **copolymer dispersing** agents)

IT Polymers, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(water-soluble; preparation of water soluble polymer **dispersings** in presence of graft **copolymer dispersing** agents)

IT **194717-69-6P 321936-93-0P 496811-35-9P 496811-36-0P 496811-37-1P 496811-38-2P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); **PREP (Preparation)**; USES (Uses)
(**dispersing** agent; preparation of water soluble polymer **dispersings** in presence of graft **copolymer dispersing** agents)

IT 35429-19-7P 69418-26-4P, Acrylamide-acryloyloxyethyltrimethylammonium chloride **copolymer** 75150-29-7P, Acrylamide-acryloylaminopropyltrimethylammonium chloride **copolymer** 101060-97-3P 108388-79-0P, Acrylamide-acryloyloxyethyldimethylbenzylammonium chloride-acryloyloxyethyltrimethylammonium chloride **copolymer** 109578-73-6P, Acrylamide-acrylic acid-acryloyloxyethyltrimethylammonium chloride **copolymer** 160767-52-2P 179816-63-8P 496809-90-6P 496810-06-1P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of water soluble polymer **dispersings** in presence of graft **copolymer dispersing** agents)

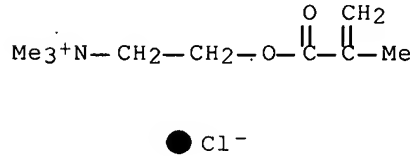
IT **194717-69-6P 321936-93-0P 496811-35-9P 496811-36-0P 496811-37-1P 496811-38-2P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); **PREP (Preparation)**; USES (Uses)
(**dispersing** agent; preparation of water soluble polymer **dispersings** in presence of graft **copolymer dispersing** agents)

RN 194717-69-6 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



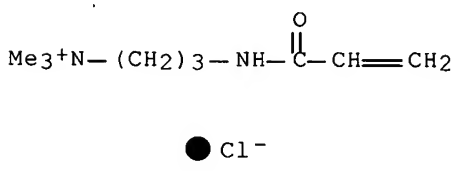
CM 2

CRN 75-21-8
CMF C2 H4 O

RN 321936-93-0 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-, chloride, polymer with oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



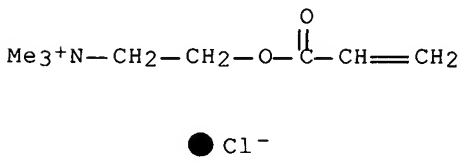
CM 2

CRN 75-21-8
CMF C2 H4 O

RN 496811-35-9 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

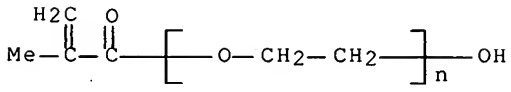
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 2

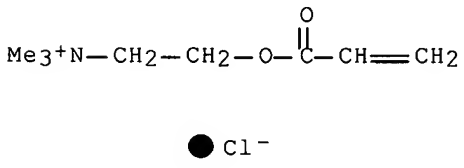
CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



RN 496811-36-0 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



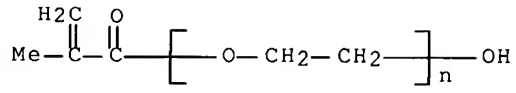
CM 2

CRN 75-21-8
CMF C2 H4 O

RN 496811-37-1 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

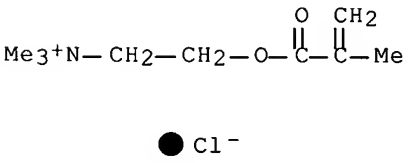
CM 1

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 2

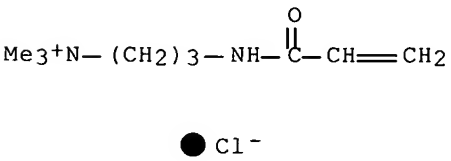
CRN 5039-78-1
CMF C9 H18 N O2 . Cl



RN 496811-38-2 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

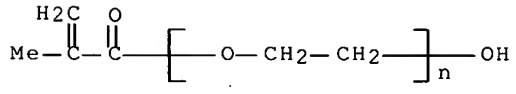
CM 1

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS

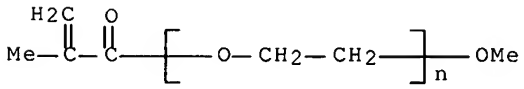


L91 ANSWER 17 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:967140 HCAPLUS Full-text
DN 139:154806
TI Synthesis studies on blood compatible materials. (VII) A novel kind of

platelet adhesion resistant polymers
AU Zhou, Jing; Shen, Jian; Lin, Si-Cong
CS Res. Center Surface Interface Chem. Eng. Technology, Nanjing Univ., Nanjing, 210093, Peop. Rep. China
SO Gaodeng Xuexiao Huaxue Xuebao (2002), 23(12), 2393-2395
CODEN: KTHPDM; ISSN: 0251-0790
PB Gaodeng Jiaoyu Chubanshe
DT Journal
LA Chinese
AB According to the hypothesis of "Maintaining normal configuration", the polymers with the structure of sulfo-ammonium inner salt would be nonthrombogenic. In this paper, a series of polymers of 3-N,N-dimethyl-3-N-methacryloyloxyethyl ammonium propanesulfonate (DMAPS) and its **copolymers** with polyethyleneglycol monomethylether methacrylate were prepared by using different concns. of monomers and crosslinking agent. Their blood compatibilities were evaluated by platelet adhesion method. The results show that PDMAPS is of excellent platelet adhesion resistance.
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): **35**
IT **Polyoxyalkylenes, biological studies**
Polysulfones, biological studies
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of platelet adhesion resistant polymers)
IT 26915-72-0P, Polyethyleneglycol monomethylether methacrylate 41488-70-4P **569650-24-4P**
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(synthesis of platelet adhesion resistant polymers)
IT **569650-24-4P**
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(synthesis of platelet adhesion resistant polymers)
RN 569650-24-4 HCAPLUS
CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

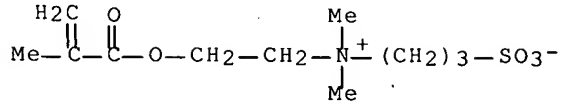
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 3637-26-1
CMF C11 H21 N O5 S



L91 ANSWER 18 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:964247 HCAPLUS Full-text
DN 138:39741
TI Use of reactive polymeric surfactants in the formation of emulsions
IN Heming, Alexander Mark; Mulqueen, Patrick Joseph; Scher, Herbert Benson; Shirley, Ian Malcolm
PA Syngenta Limited, UK
SO PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002100525	A2	20021219	WO 2002-GB2744	20020610 <--
WO 2002100525	A3	20030731		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2447759	A1	20021219	CA 2002-2447759	20020610 <--
AU 2002314315	A1	20021223	AU 2002-314315	20020610 <--
NZ 529669	A	20031219	NZ 2002-529669	20020610 <--
EP 1401562	A2	20040331	EP 2002-740885	20020610 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002010302	A	20040713	BR 2002-10302	20020610 <--
CN 1541136	A	20041027	CN 2002-815689	20020610 <--
JP 2004537610	T	20041216	JP 2003-503338	20020610 <--
ZA 2003009057	A	20040917	ZA 2003-9057	20031120 <--
IN 2003MN01063	A	20050429	IN 2003-MN1063	20031120 <--
MX 2003PA11379	A	20040405	MX 2003-PA11379	20031209 <--
US 2004197357	A1	20041007	US 2004-480405	20040527 <--
US 7199185	B2	20070403		
PRAI GB 2001-14197	A	20010611 <--		
WO 2002-GB2744	W	20020610 <--		

AB The emulsions comprise a liquid continuous phase, a liquid discontinuous phase, and a polymer surfactant having hydrophilic and hydrophobic components as stabilizer; upon interfacial polymerization, microcapsules are formed that contain an active agent, e.g., agrochem. active agents. The monomers are selected from vinyl, (meth)acrylates, alkylene glycols, and contain reactive groups, e.g., sulfonate, carboxy, carboxybetaine, quaternary ammonium, epoxide, carbodiimide, aziridine, etc. The surfactants are random graft polymers or block **copolymers** in which the hydrophobic unit includes a hydrophilic crosslinking unit which reacts with a wall forming ingredient in a microencapsulation process, or an ingredient in the **disperse** phase of an

emulsion. A reactive polymer surfactant was prepared by ATRP [atom transfer radical polymerization] of Me methacrylate, 2-hydroxyethyl methacrylate, 2-(trimethylammonium)ethyl methacrylate iodide, and mono-methoxy-poly(ethylene glycol)-mono methacrylate using ethyl-2-bromoisobutyrate as initiator, CuCl catalyst and N-propyl-2-pyridylmethanimine catalyst ligand, at 25-90° for 3-24 h.

IC ICM B01F017-00

CC 35-8 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 5, 46

IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(acrylic, graft; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

IT 119182-44-4P, 2-Hydroxyethyl methacrylate-methyl methacrylate block **copolymer** 478813-96-6P 709673-62-1P 709673-70-1P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(diblock; preparation and crosslinking of reactive polymer surfactants for use as emulsion stabilizers and micro-encapsulants)

IT 57-48-7D, D-Fructose, polymers, alkyl derivs. 1338-43-8, Span 80 104206-82-8, Mesotrione 577773-56-9, Morwet D 425
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(**dispersant** for internal phase; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

IT 9002-89-5, Poly(vinyl alcohol)
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**dispersant**; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

IT 79538-32-2, Tefluthrin
RL: AGR (Agricultural use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); BIOL (Biological study); PROC (Process); USES (Uses)
(**dispersed** internal phase; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

IT 7440-50-8, Copper, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(**dispersed** internal phase; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

IT 478814-10-7P **478814-11-8P** 478814-12-9P 478814-13-0P 478814-14-1P 478814-16-3P 478814-18-5P **478814-19-6P** 478814-20-9P
RL: AGR (Agricultural use); IMF (Industrial manufacture); TEM (Technical or engineered material use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(microcapsules; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

IT **478813-84-2P** 478813-85-3P 478813-86-4P 478813-87-5P 478813-88-6P 478813-89-7P 478813-91-1P **478813-92-2P** 478813-93-3P 478813-94-4P 478813-95-5P 478813-97-7P 478813-98-8P **478813-99-9P** 478814-00-5P 478814-01-6P 478932-53-5P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)

(preparation and crosslinking of reactive polymer surfactants for use as emulsion stabilizers and micro-encapsulants)

IT **478814-11-8P 478814-19-6P**

RL: AGR (Agricultural use); IMF (Industrial manufacture); TEM (Technical or engineered material use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

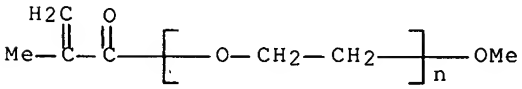
(microcapsules; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

RN 478814-11-8 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with 1,3-diisocyanatomethylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and polymethylenepolyphenylene isocyanate (9CI) (CA INDEX NAME)

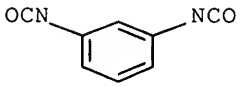
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 26471-62-5
CMF C9 H6 N2 O2
CCI IDS



D1—Me

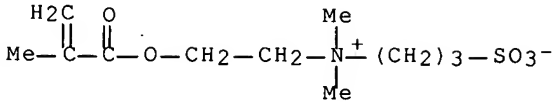
CM 3

CRN 9016-87-9
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

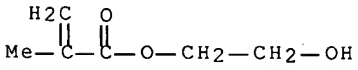
CM 4

CRN 3637-26-1
CMF C11 H21 N O5 S



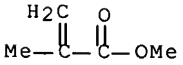
CM 5

CRN 868-77-9
CMF C6 H10 O3



CM 6

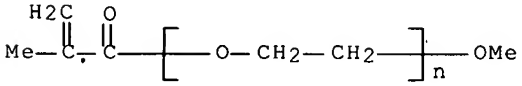
CRN 80-62-6
CMF C5 H8 O2



RN 478814-19-6 HCAPLUS
CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, 1,3-diisocyanatomethylbenzene, methyl 2-methyl-2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and polymethylenepolyphenylene isocyanate (9CI) (CA INDEX NAME)

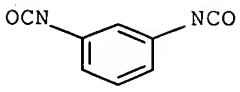
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 26471-62-5
CMF C9 H6 N2 O2
CCI IDS



D1—Me

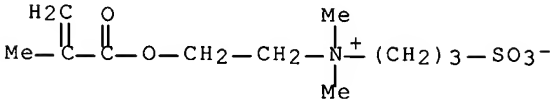
CM 3

CRN 9016-87-9
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

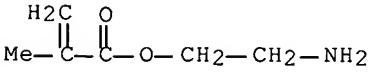
CM 4

CRN 3637-26-1
CMF C11 H21 N O5 S



CM 5

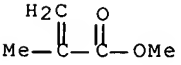
CRN 2420-94-2
CMF C6 H11 N O2 . Cl H



● HCl

CM 6

CRN 80-62-6
CMF C5 H8 O2



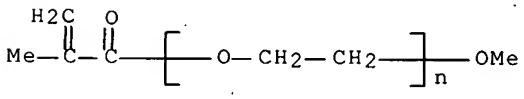
IT **478813-84-2P 478813-92-2P 478813-99-9P**
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); **PREP (Preparation)**; RACT (Reactant or reagent); USES (Uses)
(preparation and crosslinking of reactive polymer surfactants for use as emulsion stabilizers and micro-encapsulants)

RN 478813-84-2 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

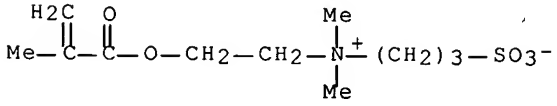
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



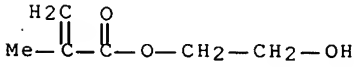
CM 2

CRN 3637-26-1
CMF C11 H21 N O5 S



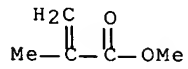
CM 3

CRN 868-77-9
CMF C6 H10 O3



CM 4

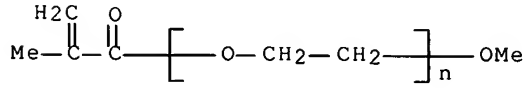
CRN 80-62-6
CMF C5 H8 O2



RN 478813-92-2 HCAPLUS
CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with 2-aminoethyl 2-methyl-2-propenoate hydrochloride, methyl 2-methyl-2-propenoate and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

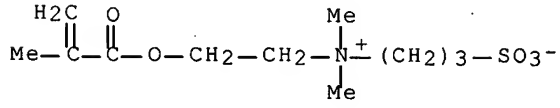
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



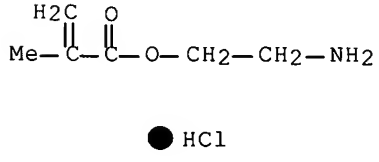
CM 2

CRN 3637-26-1
CMF C11 H21 N O5 S



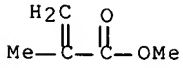
CM 3

CRN 2420-94-2
CMF C6 H11 N O2 . Cl H



CM 4

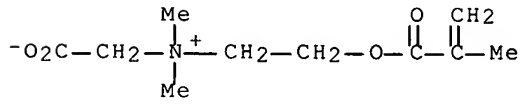
CRN 80-62-6
CMF C5 H8 O2



RN 478813-99-9 HCAPLUS
CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with methyl 2-methyl-2-propenoate and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

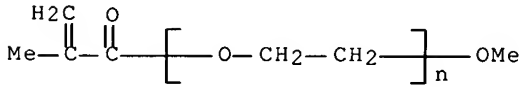
CM 1

CRN 62723-61-9
CMF C10 H17 N O4



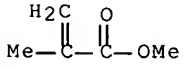
CM 2

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 3

CRN 80-62-6
CMF C5 H8 O2

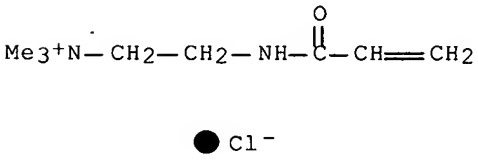


L91 ANSWER 19 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:809815 HCAPLUS Full-text
DN 138:221898
TI Synthesis of the PEO-grafted cationic polyacryamide microparticles
AU Peng, Xiao-hong; Pan, Si-wei; She, Na; Shen, Jia-rui
CS Dept. of Polymer Science and Engineering, South China Univ. Tech., Canton,

510640, Peop. Rep. China
SO Huanan Ligong Daxue Xuebao, Ziran Kexueban (2002), 30(8), 7-9, 15
CODEN: HLDKEZ; ISSN: 1000-565X
PB Huanan Ligong Daxue Xuebao Bianji Weiyuanhui
DT Journal
LA Chinese
AB The PEO-grafted, crosslinked, cationic polyacryamide nano-microparticles were synthesized by inverse microemulsion **copolymn.**, with particle size 40.apprx.90 nm and distribution index 0.56.apprx.0.65. The ball-like structure of microparticles was clearly observed and determined by TEM. By means of measurement of FTIR and 13CNMR, it demonstrated that the synthesized microparticle is composed of chain units of acrylamide, PEO-macromonomer, acryloyloxyethyl trimethylammonium chloride, N,N'-methylenebis-acrylamide, and the proportion of chain units coincided with that of feed ratio.
CC 35-4 (Chemistry of Synthetic High **Polymers**)
IT **Polyoxyalkylenes, preparation**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(graft polymers; synthesis of PEO-grafted cationic polyacryamide microparticles)
IT **500902-85-2P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(synthesis of PEO-grafted cationic polyacryamide microparticles)
IT **500902-85-2P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(synthesis of PEO-grafted cationic polyacryamide microparticles)
RN 500902-85-2 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)amino]-, chloride, polymer with N,N'-methylenebis[2-propenamide], oxirane and 2-propenamide, graft (9CI) (CA INDEX NAME)

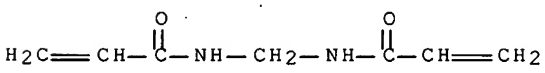
CM 1

CRN 74443-97-3
CMF C8 H17 N2 O . Cl



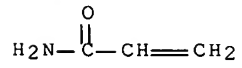
CM 2

CRN 110-26-9
CMF C7 H10 N2 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O



CM 4

CRN 75-21-8
CMF C2 H4 O

L91 ANSWER 20 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:792335 HCAPLUS Full-text
DN 137:295956
TI Antistatic propylene polymer printing sheets
IN Kuroda, Takashi; Yamada, Kazuhiro
PA Chisso Corp., Japan; Chisso Petrochemical Corporation
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002302563	A	20021018	JP 2001-108211	20010406 <--
PRAI	JP 2001-108211		20010406 <--		

AB The sheets (opacity ≥30%), useful for labels, etc., are prepared by coating crystalline propylene polymer substrate films with compns. containing hydrophilic **copolymer dispersions** prepared from quaternary ammonium base-containing (meth)acrylic monomers 5-40, carboxyl-containing (meth)acrylic monomers 1-20, other hydrophilic (meth)acrylic monomers 1-30, and H2C:CR1CO2R2 (R1 = H, Me; R2 = C1-18 alkyl) 20-60% and polycarbodiimides containing 0.1-3 mol carbodiimide groups (based on 1 mol carboxyl groups in the **copolymers**). Thus, a porous film prepared by stretching a film containing propylene polymer 100, dicyclopentadiene-based petroleum resin 4, and CaCO3 4 parts was coated with a composition containing acryloyloxypropyltrimethylammonium chloride-Et methacrylate-methacrylic acid-Me methacrylate-polyethylene glycol monomethacrylate-lauryl methacrylate **copolymer** ammonium salt **dispersion** and Carbodilite V 02 (polycarbodiimide crosslinking agent) on one side and dried to give a test piece showing surface resistivity 2 + 1010 and 3 + 1010 Ω, initially and after 24-h immersion in water, resp., good adhesion to inks, and good scratch resistance of printed inks.

IC ICM C08J007-04
ICS B32B027-30; B32B027-32; C08K003-00; C08L023-10; C08L045-00;

C09D133-00; C09K003-16
CC 38-3 (**Plastics** Fabrication and Uses)
IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polycarbodiimide-polyurethane-, acrylic; antistatic propylene polymer printing sheets)
IT **469860-40-0P** 469860-42-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(antistatic propylene polymer printing sheets)
IT **469860-40-0P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(antistatic propylene polymer printing sheets)
RN 469860-40-0 HCAPLUS
CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with dodecyl 2-methyl-2-propenoate, ethyl 2-methyl-2-propenoate, α-[4-[[4-[[(2-hydroxyethoxy)carbonyl]amino]cyclohexyl]methyl]cyclohexyl]-ω-[[(2-hydroxyethoxy)carbonyl]amino]poly(nitrilomethanetetraylnitrilo-1,4-cyclohexanediylmethylene-1,4-cyclohexanediyl), methyl 2-methyl-2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl) and 2-methyl-2-propenoic acid, ammonium salt (9CI) (CA INDEX NAME)

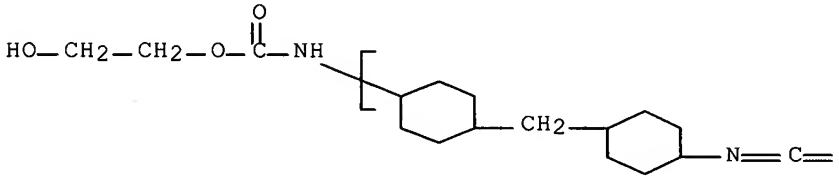
CM 1

CRN 469860-39-7
CMF (C16 H30 O2 . (C14 H22 N2)n C19 H34 N2 O6 . C9 H18 N O3 . C6 H10 O2 . C5 H8 O2 . C4 H6 O2 . (C2 H4 O)n C4 H6 O2 . Cl)x
CCI PMS

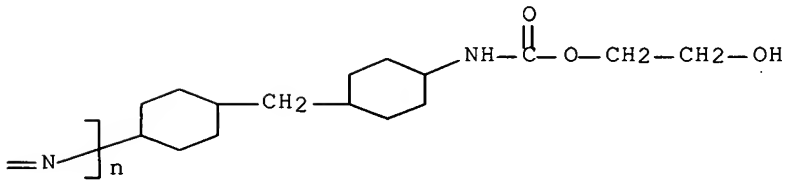
CM 2

CRN 195725-90-7
CMF (C14 H22 N2)n C19 H34 N2 O6
CCI PMS

PAGE 1-A

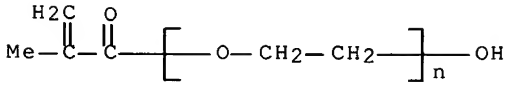


PAGE 1-B



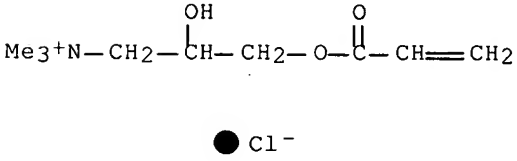
CM 3

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



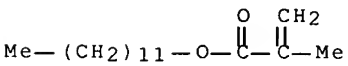
CM 4

CRN 13052-13-6
CMF C9 H18 N O3 . Cl



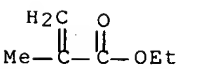
CM 5

CRN 142-90-5
CMF C16 H30 O2



CM 6

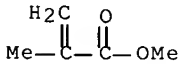
CRN 97-63-2
CMF C6 H10 O2



CM 7

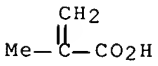
CRN 80-62-6

CMF C5 H8 O2



CM 8

CRN 79-41-4
CMF C4 H6 O2

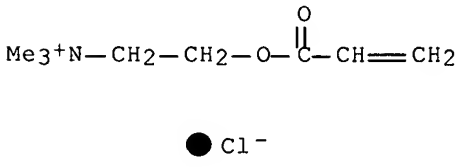


L91 ANSWER 21 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:559277 HCAPLUS Full-text
DN 137:279699
TI Study on new type of cationic polyacrylamide microparticles. II. Flocculation of cationic polyacrylamide microparticles with **polyethylene oxide** side chains
AU Pan, Si-Wei; Peng, Xiao-Hong; She, Na; Shen, Jia-Rui
CS Guangdong Research Institute of Power Testing, Guangzhou Guangdong, 510600, Peop. Rep. China
SO Shiyou Huagong (**2002**), 31(7), 547-550
CODEN: SHHUE8; ISSN: 1000-8144
PB Shiyou Huagong Bianjibu
DT Journal
LA Chinese
AB The novel cationic polyacrylamide microparticles with **polyethylene oxide** (PEO) side chains were synthesized via inverse microemulsion **copolymn.** of acrylamide (AM), PEO-macromonomer (PEO-A), acryloyloxyethyl trimethylammonium chloride (ADAMQUAT) and N,N'-methylenebisacrylamide. The expts. on retention of paper-pulp and flocculation of waste water showed t novel microparticles can be used independently with excellent flocculation (retention)effect and good shear resistance.
CC 36-5 (Physical Properties of Synthetic High **Polymers**)
ST cationic polyacrylamide **polyethylene oxide** side chain microparticle flocculation
IT Flocculation
Microparticles
(flocculation of cationic polyacrylamide microparticles with **polyethylene oxide** side chains)
IT **466695-98-7P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(flocculation of cationic polyacrylamide microparticles with **polyethylene oxide** side chains)
IT **466695-98-7P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(flocculation of cationic polyacrylamide microparticles with **polyethylene oxide** side chains)
RN 466695-98-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with N,N'-methylenebis[2-propenamide], oxirane and 2-propenamide, graft (9CI) (CA INDEX NAME)

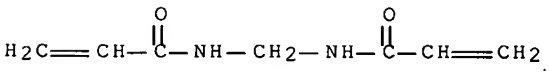
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



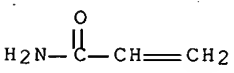
CM 2

CRN 110-26-9
CMF C7 H10 N2 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O



CM 4

CRN 75-21-8
CMF C2 H4 O

L91 ANSWER 22 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:428953 HCAPLUS Full-text
DN 137:20781
TI Cationically modified water-soluble or water-swellable polymers based on

acryloyldimethyltaurine acid
IN Morschhaeuser, Roman; Glauder, Jan; Klein, Sonja; Loeffler, Matthias
PA Clariant Gmbh, Germany
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 16

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002044229	A1	20020606	WO 2001-EP13856	20011128 <--
	W: BR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	DE 10059830	A1	20020613	DE 2000-10059830	20001201 <--
	JP 2002201224	A	20020719	JP 2001-296001	20010927 <--
	EP 1339765	A1	20030903	EP 2001-994741	20011128 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	BR 2001015834	A	20040106	BR 2001-15834	20011128 <--
	US 2005032998	A1	20050210	US 2003-433006	20031117 <--
	US 7081507	B2	20060725		
PRAI	DE 2000-10059830	A	20001201 <--		
	WO 2001-EP13856	W	20011128 <--		

AB The invention relates to water-soluble or water-swellable **copolymers** , which can be obtained by radically **copolymg.**: (A) acryloyldimethyltaurine acid and/or acryloyldimethyltaurates, (B) optionally one or more addnl. olefinically unsatd., noncationic, optionally crosslinking comonomers, which comprise at least one oxygen atom, nitrogen atom, sulfur atom or phosphorous atom and which have a mol. weight of less than 500 g/mol, (C) one or more macromonomers, which are olefinically unsatd. once or a number of times, which are optionally crosslinking, which each comprise at least one oxygen atom, nitrogen atom, sulfur atom or phosphorous atom, and which have an average mol. weight of greater than or equal to 200 g/mol, and (D) one or more olefinically unsatd., cationic comonomers, which comprise at least one oxygen atom, nitrogen atom, sulfur atom or phosphorous atom and which have a mol. weight of less than 500 g/mol, whereby the **copolymn.** optionally ensues in the presence of at least one polymeric additive having average mol. wts. ranging from 200 g/mol to 109 g/mol. A typical polymer was manufactured by radical polymerization of AMPS NH4 salt 80, Genapol BE-010 methacrylate 15, and DADMAC 5 g.

IC ICM C08F290-06
ICS C08L051-00; C08F291-00; C08F002-22; C08F265-04; C08F271-02
CC 35-4 (Chemistry of Synthetic High **Polymers**)
ST cationically modified acryloyldimethyltaurate polymer manuf; polyoxyalkylene methacrylate DADMAC ammonium AMPS **copolymer** manuf
IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(ethers, reaction products, with cationically modified acryloyldimethyltaurate-based **copolymers**; cationically modified water-soluble or water-swellable polymers based on acryloyldimethyltaurine acid or its salt)
IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(reaction products with cationically modified acryloyldimethyltaurate-based **copolymers**; cationically modified water-soluble or water-swellable polymers based on acryloyldimethyltaurine acid or its salt)
IT **Polyoxyalkylenes, preparation**

RL: IMF (Industrial manufacture); PREP (Preparation)
(reaction products, with cationically modified acryloyldimethyltaurate-based **copolymers**; cationically modified water-soluble or water-swellable polymers based on acryloyldimethyltaurine acid or its salt)

IT 79-41-4DP, Methacrylic acid, esters, with polyoxyalkylenes, polymers with ammonium AMPS and methacryloyloxyethyltrimethylammonium chloride, reaction products with polyvinylpyrrolidone 5039-78-1DP, 2-Methacryloyloxyethyltrimethylammonium chloride, polymers with polyoxyalkylene methacrylates and ammonium AMPS, reaction products with polyvinylpyrrolidone 9003-01-4DP, Polyacrylic acid, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 9003-05-8DP, Polyacrylamide, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 9003-39-8DP, K-15, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 15214-89-8DP, AMPS, polymers with polyoxyalkylene methacrylates and methacrylamidoethyltrimethylammonium chloride 25087-26-7DP, Polymethacrylic acid, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 25189-83-7DP, Poly-N-vinylcaprolactam, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** **25322-68-3DP, Polyethylene oxide**, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** **25322-69-4DP, Polypropylene oxide**, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 26062-79-3DP, Polydiallyldimethylammonium chloride, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 26161-33-1DP, Poly-2-methacryloyloxyethyltrimethylamm onium chloride, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 26616-03-5DP, Poly-N-vinyl-N-methylacetamide, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 28408-65-3DP, Poly-N-vinylacetamide, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 31851-82-8DP, Poly-N-vinylmorpholine, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 50885-97-7DP, Polyhydroxymethyl methacrylate, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** 69174-85-2DP, polymers with polyoxyalkylene methacrylates and AMPS 74443-97-3DP, 2-Acrylamidoethyltrimethylammonium chloride, polymers with polyoxyalkylene methacrylates, ammonium AMPS, and TMPTA, reaction products with polyvinylformamide **434328-75-3DP**, reaction products with polyvinylcaprolactam 434898-82-5P **434898-84-7P** **434955-79-0P**

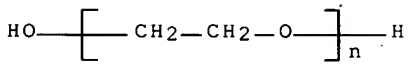
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(cationically modified water-soluble or water-swellable polymers based on acryloyldimethyltaurine acid or its salt)

IT **25322-68-3DP, Polyethylene oxide**, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** **25322-69-4DP, Polypropylene oxide**, reaction products with cationically modified acryloyldimethyltaurate-based **copolymers** **434328-75-3DP**, reaction products with polyvinylcaprolactam **434898-84-7P** **434955-79-0P**

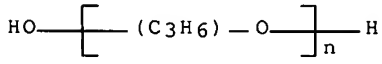
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(cationically modified water-soluble or water-swellable polymers based on acryloyldimethyltaurine acid or its salt)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



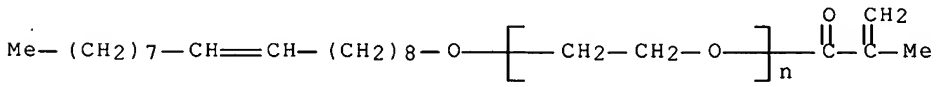
RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy- (CA INDEX NAME)



RN 434328-75-3 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), (Z)-α-(2-methyl-1-oxo-2-propenyl)-ω-(9-octadecenyloxy)poly(oxy-1,2-ethanediyl) and N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

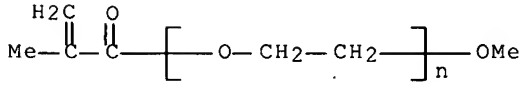
CM 1

CRN 176110-19-3
CMF (C2 H4 O)n C22 H40 O2
CCI PMS



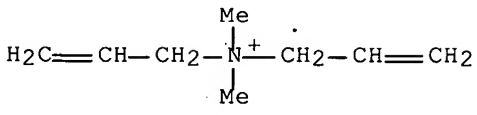
CM 2

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



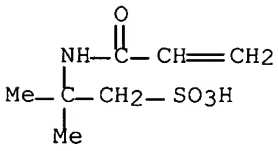
CM 3

CRN 7398-69-8
CMF C8 H16 N . Cl



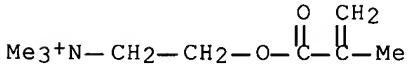
CM 4

CRN 5165-97-9
CMF C7 H13 N O4 S . Na



CM 5

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



RN 434898-84-7 HCAPLUS
CN Pyridinium, 4-ethenyl-1-methyl-, chloride, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monoammonium salt and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

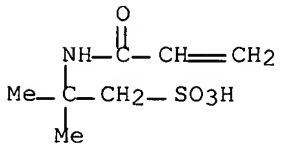
CRN 67-56-1
CMF C H4 O

CM 2

CRN 434898-83-6
CMF (C15 H20 O6 . C8 H10 N . C7 H13 N O4 S . C2 H4 O . Cl . H3 N)x
CCI PMS

CM 3

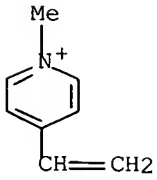
CRN 58374-69-9
CMF C7 H13 N O4 S . H3 N



● NH_3

CM 4

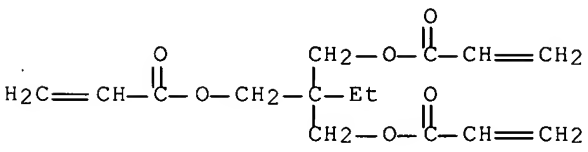
CRN 45708-78-9
CMF C8 H10 N . Cl



● Cl^-

CM 5

CRN 15625-89-5
CMF C15 H20 O6



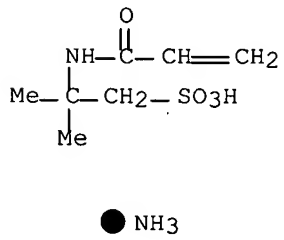
CM 6

CRN 75-21-8
CMF C2 H4 O

RN 434955-79-0 HCAPLUS
CN Pyridinium, 4-ethenyl-1-methyl-, chloride, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monoammonium salt and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

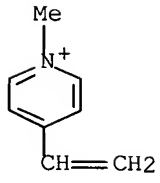
CM 1

CRN 58374-69-9
CMF C7 H13 N O4 S . H3 N



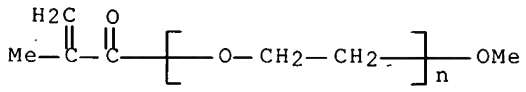
CM 2

CRN 45708-78-9
CMF C8 H10 N . Cl



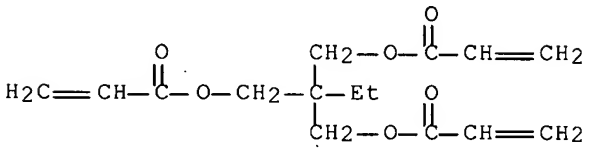
CM 3

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 4

CRN 15625-89-5
CMF C15 H20 O6



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 23 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:428948 HCAPLUS Full-text
DN 137:20778
TI Water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid
IN Morschhaeuser, Roman; Glauder, Jan; Loeffler, Matthias; Kayser, Christoph; Tardi, Aranka
PA Clariant Gmbh, Germany
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 16

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002044224	A2	20020606	WO 2001-EP13854	20011128 <--
	WO 2002044224	A3	20030912		
	W: BR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	DE 10059828	A1	20020613	DE 2000-10059828	20001201 <--
	JP 2002201239	A	20020719	JP 2001-296003	20010927 <--
	EP 1363956	A2	20031126	EP 2001-991763	20011128 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	BR 2001015815	A	20040127	BR 2001-15815	20011128 <--
	US 2004167304	A1	20040826	US 2003-433179	20031110 <--
	US 6891011	B2	20050510		
PRAI	DE 2000-10059828	A	20001201	<--	

WO 2001-EP13854 W 20011128 <--

AB The invention relates to water-soluble or water-swellable **copolymers** , which are obtained by radically **copolymg.**: (A) acryloyldimethyltaurine acid and/or acryloyldimethyltaurates, (B) optionally, one or more addnl. olefinically unsatd., non-cationic comonomers, (C) optionally, one or more olefinically unsatd., cationic comonomers, (D) optionally, one or more silicon-containing constituent(s), (E) optionally one or more fluorine-containing constituent(s), (F) optionally one or more macromonomers, (G) optionally, at least one polymeric additive, with the provision that constituent (A) is **copolymd.** with at least two constituents selected from at least two of groups (C) to (F). A typical **copolymer** was manufactured by radical polymerization of AMPS NH4 salt 80, Genapol LA-070 methacrylate 10, Silvet 7608 (monofunctional ethoxylated siloxane methacrylate) 10, and TMPTA 1.8 g.

IC ICM C08F020-58

CC 35-4 (Chemistry of Synthetic High **Polymers**)

ST acryloyldimethyltaurate polyoxyethylene ether methacrylate **copolymer** manuf; TMPTA acryloyldimethyltaurate polymer manuf; siloxane ethoxylated methacrylate acryloyldimethyltaurate polymer manuf

IT Alcohols, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(C12-14, ethoxylated, Genapol LA-070, methacrylates, polymers with acryloyldimethyltaurates; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT Polymers, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(comb; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT Quaternary ammonium compounds, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymers; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT Polysiloxanes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(polyoxyalkylene-, acrylates, Silvet 7608, Silvet Y-12867, polymers with acryloyldimethyltaurates; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(polysiloxane-, acrylates, Silvet 7608, Silvet Y-12867, polymers with acryloyldimethyltaurates; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT Alcohols, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(tallow, ethers, with graft polymers of **ethylene oxide** and acryloyldimethyltaurates; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT Alcohols, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(tallow, ethoxylated, acrylates, polymers with acryloyldimethyltaurates, reaction products with polyvinylcaprolactam; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT Polyelectrolytes
(water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT 58130-03-3DP, GP 478, polymers with acryloyldimethyltaurate, reaction products with acrylic acid-vinylcaprolactam **copolymers**
RL: IMF (Industrial manufacture); PREP (Preparation)
(GP-446; water-soluble and water-swellable **copolymers** based on

acryloyldimethyltaurine acid or its salts)

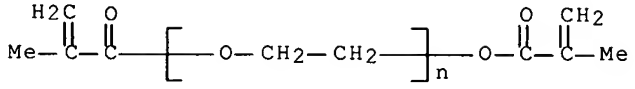
IT 79-41-4DP, Methacrylic acid, esters with ethoxylated C12-14 alcs. or ethoxylated siloxanes
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymers, with acryloyldimethyltaurates; water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT 79-06-1DP, Acrylamide, **copolymers** with acryloyldimethyltaurates 79-10-7DP, Acrylic acid, esters with ethoxylated tallow alcs., polymers with acryloyldimethyltaurates, reaction products with polyvinylcaprolactam 88-12-0DP, N-Vinyl-2-pyrrolidone, **copolymers** with acryloyldimethyltaurates 3724-65-0DP, Crotonic acid, esters with polyethylene glycol tallow ethers, polymers with acryloyldimethyltaurates, reaction products with acrylic acid-vinylformamide **copolymers** 9003-39-8DP, K-30, reaction products with acryloyldimethyltaurate salt polymers 9056-77-3DP, Polyethylene glycol methacrylate, **copolymers** with acryloyldimethyltaurates, reaction products with acrylic acid-vinylcaprolactam **copolymers** 15625-89-5DP, TMPTA, comb **copolymers** with acryloyldimethyltaurates 25189-83-7DP, Poly-N-vinylcaprolactam, reaction products with **copolymers** of acryloyldimethyltaurates **25852-47-5DP**, Polyethylene glycol dimethacrylate, **copolymers** with acryloyldimethyltaurates, reaction products with polyvinylcaprolactam 45708-78-9DP, **copolymers** with acryloyldimethyltaurates, reaction products with polyvinylcaprolactam 72018-12-3DP, Poly-N-vinylformamide, reaction products with acryloyldimethyltaurate-based polymers 102583-40-4DP, Acrylic acid-N-vinylcaprolactam **copolymer**, reaction products with acryloyldimethyltaurate-based polymers 134367-40-1DP, Acrylic acid-N-vinylformamide **copolymer**, reaction products with **copolymers** of acryloyldimethyltaurates **434286-57-4DP**, Ammonium 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonate-**ethylene oxide**-2-(methacryloyloxy)ethyltrimethylammonium chloride-N-vinyl-2-pyrrolidone graft **copolymer**, ethers with tallow alcs., reaction products with polyvinylpyrrolidone 434286-58-5DP, **copolymers** with acryloyldimethyltaurates, reaction products with acrylic acid-vinylcaprolactam **copolymers 434286-59-6DP** , reaction products with poly-N-vinylformamide 434286-60-9DP, **copolymers** with acryloyldimethyltaurates, reaction products with polyvinylcaprolactam **435278-26-5DP**, ethers with tallow alcs.
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

IT **25852-47-5DP**, Polyethylene glycol dimethacrylate, **copolymers** with acryloyldimethyltaurates, reaction products with polyvinylcaprolactam **434286-57-4DP**, Ammonium 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonate-**ethylene oxide**-2-(methacryloyloxy)ethyltrimethylammonium chloride-N-vinyl-2-pyrrolidone graft **copolymer**, ethers with tallow alcs., reaction products with polyvinylpyrrolidone **434286-59-6DP**, reaction products with poly-N-vinylformamide **435278-26-5DP**, ethers with tallow alcs.
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(water-soluble and water-swellable **copolymers** based on acryloyldimethyltaurine acid or its salts)

RN 25852-47-5 HCAPLUS

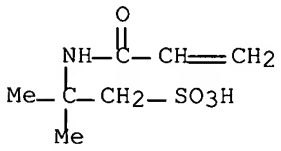
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propen-1-yl)-ω-[(2-methyl-1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)



RN 434286-57-4 HCAPLUS.
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 1-ethenyl-2-pyrrolidinone, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monoammonium salt and oxirane, graft (9CI) (CA INDEX NAME)

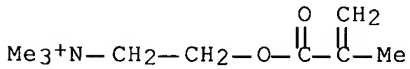
CM 1

CRN 58374-69-9
CMF C7 H13 N O4 S . H3 N



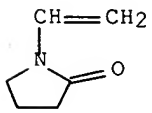
CM 2

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 3

CRN 88-12-0
CMF C6 H9 N O



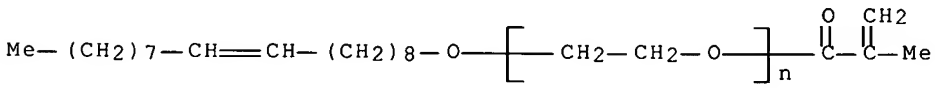
CM 4

CRN 75-21-8
CMF C2 H4 O

RN 434286-59-6 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with N-ethenylformamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and α-[(2Z)-2-methyl-1-oxo-2-propenyl]-ω-(9-octadecenyloxy)poly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

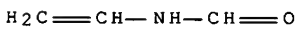
CM 1

CRN 176110-19-3
CMF (C2 H4 O)n C22 H40 O2
CCI PMS



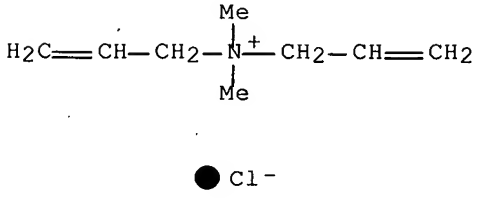
CM 2

CRN 13162-05-5
CMF C3 H5 N O



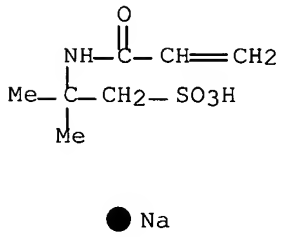
CM 3

CRN 7398-69-8
CMF C8 H16 N . Cl



CM 4

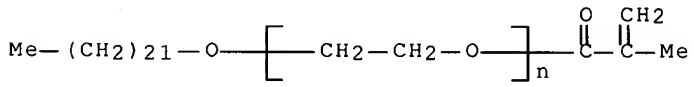
CRN 5165-97-9
CMF C7 H13 N O4 S . Na



RN 435278-26-5 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, α-(2-methyl-1-oxo-2-propenyl)-ω-(docosyloxy)poly(oxy-1,2-ethanediyl) and oxirane, graft (9CI) (CA INDEX NAME)

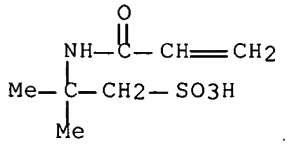
CM 1

CRN 115047-92-2
CMF (C2 H4 O)n C26 H50 O2
CCI PMS



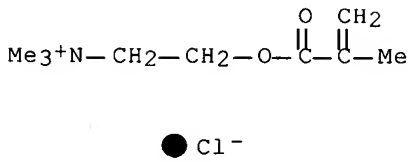
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 3

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 4

CRN 75-21-8
CMF C2 H4 O

L91 ANSWER 24 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:107403 HCAPLUS Full-text
DN 136:151598
TI Manufacture of water-soluble or water-swellable **copolymers** containing sulfo groups as associative thickeners for construction materials
IN Schinabeck, Michael; Albrecht, Gerhard; Kern, Alfred; Schuhbeck, Manfred; Melzer, Michaela
PA Degussa Bauchemie G.m.b.H., Germany
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002010229	A1	20020207	WO 2001-EP8938	20010802 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10037629	A1	20020214	DE 2000-10037629	20000802 <--
CA 2417421	A1	20030130	CA 2001-2417421	20010802 <--
EP 1309634	A1	20030514	EP 2001-971853	20010802 <--
EP 1309634	B1	20061004		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004505127	T	20040219	JP 2002-515957	20010802 <--
AT 341568	T	20061015	AT 2001-971853	20010802 <--
ES 2269460	T3	20070401	ES 2001-1971853	20010802 <--
CZ 297813	B6	20070404	CZ 2003-578	20010802 <--
US 2004024154	A1	20040205	US 2003-343102	20030711 <--

US 7238760 B2 20070703
PRAI DE 2000-10037629 A 20000802 <--
WO 2001-EP8938 W 20010802 <--

AB H2O-soluble or H2O-swellable **copolymers** which contain sulfo groups and are based on N-sulfoalkyl(meth)acrylamide derivs. and (meth)acrylamide or N-vinyl compds. (structures specified), useful as additives for aqueous construction materials or for water-thinned paints and coatings, were manufactured The inventive **copolymers** also represent H2O retention agents which are effective, even when used in relatively small quantities, and which are compatible in construction material and paint systems of this type. For example, a solid gel was obtained by radical polymerization of partially neutralized (pH 6.0) mixture of 2.17 mol 2-acrylamido-2- methylpropanesulfonic acid with N,N-dimethylacrylamide 0.83, (3-methacrylamidopropyl)trimethylammonium chloride 0.12 and Sipomer SEM 25 0.023 mol. The gel was dried, comminuted and added (0.16%) to a water-thinned ceramic tile adhesive to give H2O retention 99.1%, vs. 97.7 for a similar **copolymer** containing polyethylene glycol methacrylate Me ether instead of Sipomer SEM 25.

IC ICM C08F020-00
ICS C08F220-00

CC 35-4 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 58

ST polymer thickener manuf waterborne adhesive water retention; acrylamidomethylpropanesulfonic acid **copolymer** manuf water retention aid waterborne adhesive; plaster waterborne water retention aid acrylamidomethylpropanesulfonic acid **copolymer** manuf; polyoxyethylene tristyrylphenyl ether methacrylate **copolymer** water retention aid adhesive; gel polymn polyoxyethylene tristyrylphenyl ether methacrylate water retention aid

IT Concrete
Thickening agents
(manufacture of water-soluble or -swellable **copolymers** containing sulfo groups as associative thickeners for construction materials)

IT Lime (chemical)
RL: TEM (Technical or engineered material use); USES (Uses)
(manufacture of water-soluble or -swellable **copolymers** containing sulfo groups as associative thickeners for construction materials)

IT **395063-24-8P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-Dimethylacrylamide-(3-Methacrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer** **395063-25-9P**, Acrylamide-2-Acrylamido-2-methylpropanesulfonic acid-(3-Methacrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer** **395063-26-0P**, 2-Acrylamido-2-methylpropanesulfonic acid-3-(N,N-Dimethylaminopropyl)acrylamide-(3-Methacrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer** **395063-27-1P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-Dimethylacrylamide-Dimethyldiallylammonium chloride-Sipomer SEM 25 **copolymer** **395063-28-2P**, 2-Acrylamido-2-methylpropanesulfonic acid-3-(N,N-Dimethylaminopropyl)acrylamide-(3-Acrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer** **395063-29-3P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-Dimethylacrylamide-Dimethyldiallylammonium chloride-Sipomer BEM **copolymer** **395064-83-2P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-dimethylacrylamide-(3-methacrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol **395064-85-4P**, 2-Acrylamido-2-methylpropanesulfonic acid-acrylamide-(3-methacrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol **395064-87-6P**, 2-Acrylamido-2-methylpropanesulfonic

acid-(N,N-dimethylaminopropyl)acrylamide-(3-methacrylamidopropyl)trimethyl ammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol **395064-89-8P**, 2-Acrylamido-2-methylpropanesulfonic acid-3-(N,N-dimethylaminopropyl)acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(manufacture of water-soluble or -swellable **copolymers** containing sulfo groups as associative thickeners for construction materials)

IT 13397-24-5, Gypsum, uses 14798-04-0, Anhydrite
RL: TEM (Technical or engineered material use); USES (Uses)
(manufacture of water-soluble or -swellable **copolymers** containing sulfo groups as associative thickeners for construction materials)

IT **395063-24-8P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-Dimethylacrylamide-(3-Methacrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer 395063-25-9P**, Acrylamide-2-Acrylamido-2-methylpropanesulfonic acid-(3-Methacrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer 395063-26-0P**, 2-Acrylamido-2-methylpropanesulfonic acid-3-(N,N-Dimethylaminopropyl)acrylamide-(3-Methacrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer 395063-27-1P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-Dimethylacrylamide-Dimethyldiallylammonium chloride-Sipomer SEM 25 **copolymer 395063-28-2P**, 2-Acrylamido-2-methylpropanesulfonic acid-3-(N,N-Dimethylaminopropyl)acrylamide-(3-Acrylamidopropyl)trimethylammonium chloride-Sipomer SEM 25 graft **copolymer 395063-29-3P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-Dimethylacrylamide-Dimethyldiallylammonium chloride-Sipomer BEM **copolymer 395064-83-2P**, 2-Acrylamido-2-methylpropanesulfonic acid-N,N-dimethylacrylamide-(3-methacrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol **395064-85-4P**, 2-Acrylamido-2-methylpropanesulfonic acid-acrylamide-(3-methacrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol **395064-87-6P**, 2-Acrylamido-2-methylpropanesulfonic acid-(N,N-dimethylaminopropyl)acrylamide-(3-methacrylamidopropyl)trimethyl ammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol **395064-89-8P**, 2-Acrylamido-2-methylpropanesulfonic acid-3-(N,N-dimethylaminopropyl)acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** ether with 2,4,6-tristyrylphenol
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(manufacture of water-soluble or -swellable **copolymers** containing sulfo groups as associative thickeners for construction materials)

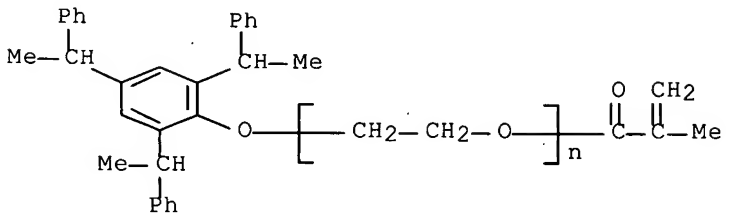
RN 395063-24-8 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with N,N-dimethyl-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

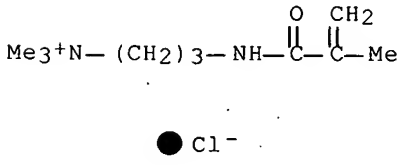
CRN 174200-85-2

CMF (C2 H4 O)n C34 H34 O2
CCI PMS



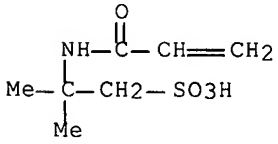
CM 2

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



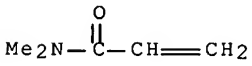
CM 3

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 4

CRN 2680-03-7
CMF C5 H9 N O

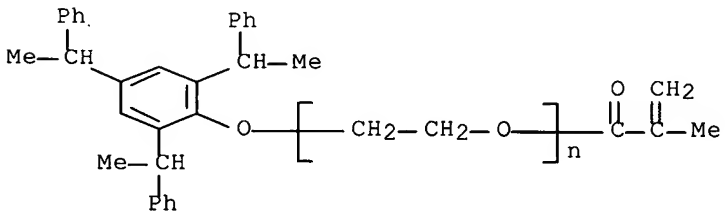


RN 395063-25-9 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-

propanesulfonic acid, α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl) and 2-propenamide, graft (9CI) (CA INDEX NAME)

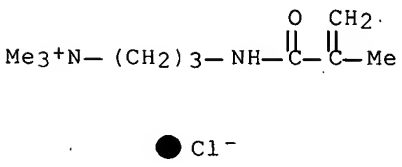
CM 1

CRN 174200-85-2
CMF (C2 H4 O)n C34 H34 O2
CCI PMS



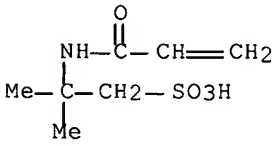
CM 2

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



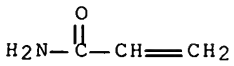
CM 3

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 4

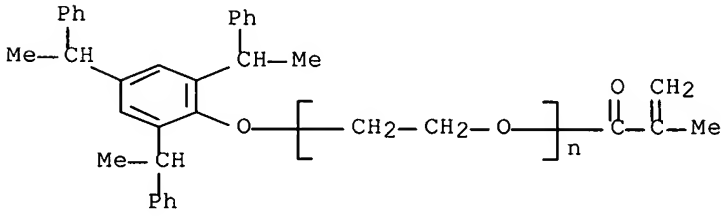
CRN 79-06-1
CMF C3 H5 N O



RN 395063-26-0 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with N-[3-(dimethylamino)propyl]-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

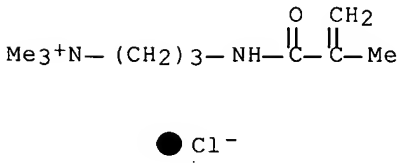
CM 1

CRN 174200-85-2
CMF (C2 H4 O)n C34 H34 O2
CCI PMS



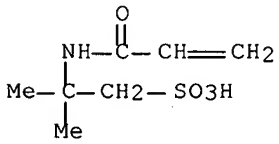
CM 2

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



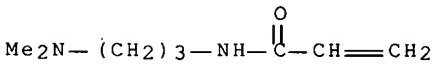
CM 3

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 4

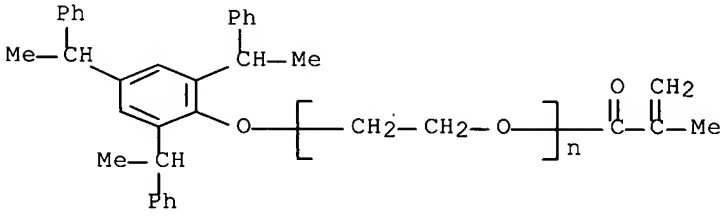
CRN 3845-76-9
CMF C8 H16 N2 O



RN 395063-27-1 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with N,N-dimethyl-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

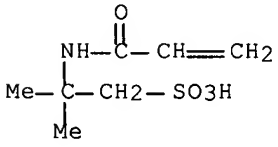
CM 1

CRN 174200-85-2
CMF (C2 H4 O)n C34 H34 O2
CCI PMS



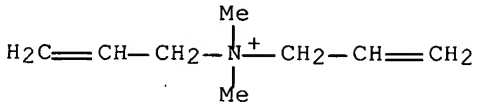
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



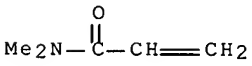
CM 3

CRN 7398-69-8
CMF C8 H16 N . Cl



CM 4

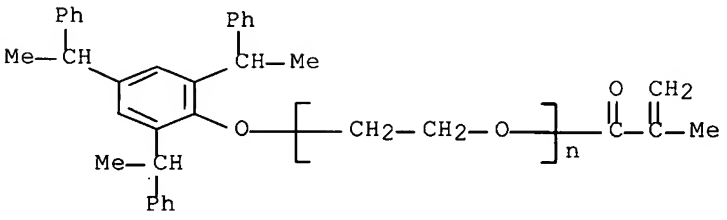
CRN 2680-03-7
CMF C5 H9 N O



RN 395063-28-2 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-, chloride, polymer with N-[3-(dimethylamino)propyl]-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

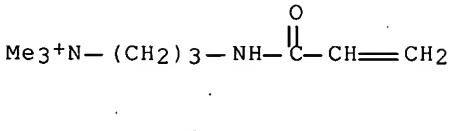
CM 1

CRN 174200-85-2
CMF (C2 H4 O)n C34 H34 O2
CCI PMS



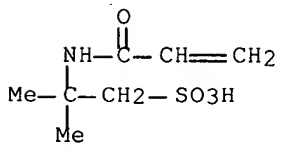
CM 2

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



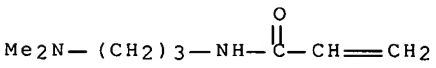
CM 3

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 4

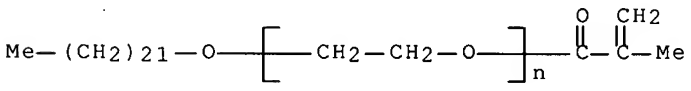
CRN 3845-76-9
CMF C8 H16 N2 O



RN 395063-29-3 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with N,N-dimethyl-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-(docosyloxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

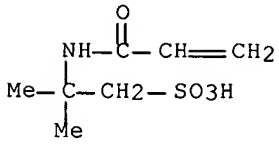
CM 1

CRN 115047-92-2
CMF (C2 H4 O)n C26 H50 O2
CCI PMS



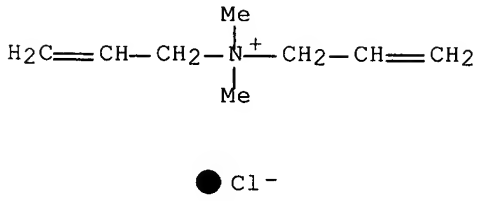
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



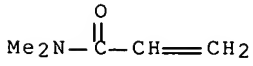
CM 3

CRN 7398-69-8
CMF C8 H16 N . Cl



CM 4

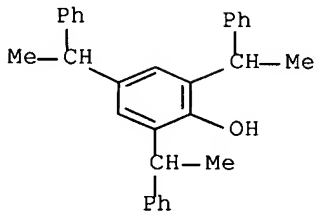
CRN 2680-03-7
CMF C5 H9 N O



RN 395064-83-2 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with N,N-dimethyl-2-propenamide, 2-methyl-1-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and oxirane, 2,4,6-tris(1-phenylethyl)phenyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 18254-13-2
CMF C30 H30 O

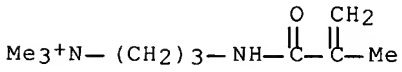


CM 2

CRN 395064-82-1
CMF (C10 H21 N2 O . C7 H13 N O4 S . C5 H9 N O . C2 H4 O . Cl)x
CCI PMS

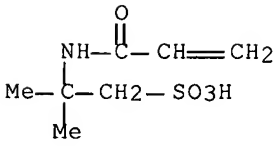
CM 3

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



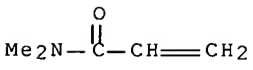
CM 4

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 5

CRN 2680-03-7
CMF C5 H9 N O



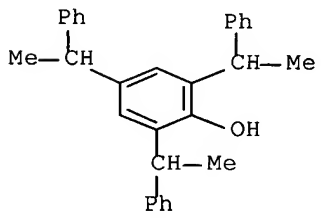
CM 6

CRN 75-21-8
CMF C2 H4 O

RN 395064-85-4 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, oxirane and 2-propenamide, 2,4,6-tris(1-phenylethyl)phenyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 18254-13-2
CMF C30 H30 O

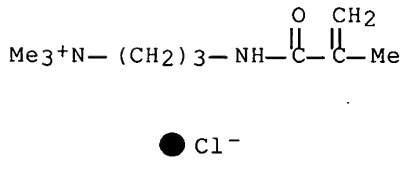


CM 2

CRN 395064-84-3
CMF (C10 H21 N2 O . C7 H13 N O4 S . C3 H5 N O . C2 H4 O . Cl)x
CCI PMS

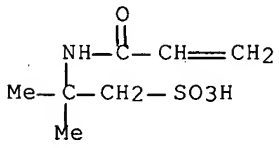
CM 3

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



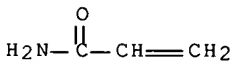
CM 4

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 5

CRN 79-06-1
CMF C3 H5 N O



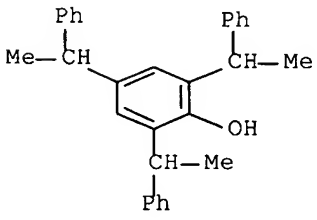
CM 6

CRN 75-21-8
CMF C2 H4 O

RN 395064-87-6 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, chloride, polymer with N-[3-(dimethylamino)propyl]-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and oxirane, 2,4,6-tris(1-phenylethyl)phenyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 18254-13-2
CMF C30 H30 O

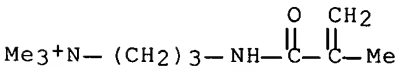


CM 2

CRN 395064-86-5
CMF (C10 H21 N2 O . C8 H16 N2 O . C7 H13 N O4 S . C2 H4 O . Cl)x
CCI PMS

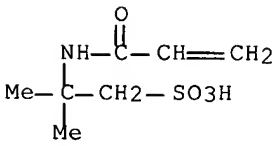
CM 3

CRN 51410-72-1
CMF C10 H21 N2 O . Cl



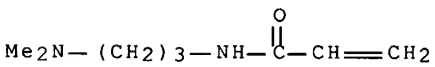
CM 4

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



CM 6

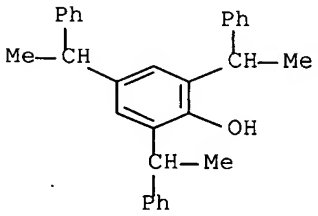
CRN 75-21-8
CMF C2 H4 O

RN 395064-89-8 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-, chloride,

polymer with N-[3-(dimethylamino)propyl]-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and oxirane, 2,4,6-tris(1-phenylethyl)phenyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 18254-13-2
CMF C30 H30 O

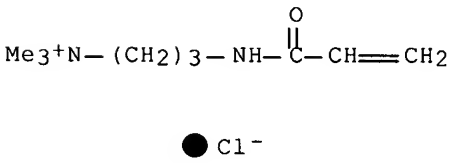


CM 2

CRN 395064-88-7
CMF (C9 H19 N2 O . C8 H16 N2 O . C7 H13 N O4 S . C2 H4 O . Cl)x
CCI PMS

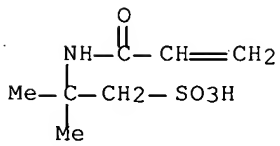
CM 3

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



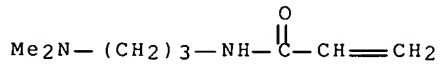
CM 4

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 5

CRN 3845-76-9
CMF C8 H16 N2 O



CM 6

CRN 75-21-8
CMF C2 H4 O

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 25 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:10557 HCAPLUS Full-text
DN 136:70275
TI Heat-sensitive, water-soluble **copolymers** based on (poly)ethoxylated (meth)acrylate, method for making same and use for preparing adhesive films and binders for textile webs
IN Tembou, N'zudie Denis
PA ATOFINA, Fr.; Tembou N'zudie, Denis
SO PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002000743	A2	20020103	WO 2001-FR2015	20010626 <--
	WO 2002000743	A3	20020314		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2810669	A1	20011228	FR 2000-8229	20000627 <--
	FR 2810669	B1	20020830		
	EP 1297034	A2	20030402	EP 2001-949527	20010626 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004501993	T	20040122	JP 2002-505865	20010626 <--
	US 2003220459	A1	20031127	US 2003-311862	20030321 <--
PRAI	FR 2000-8229	A	20000627 <--		
	WO 2001-FR2015	W	20010626 <--		

AB The invention concerns a heat-sensitive, water-soluble **copolymer** (lower-critical-solution temperature, 6-95°) obtained from a composition of water soluble monomers comprising, for 100 mol parts: 10-69 parts ≥1 of CH2:CR1CO2(R2O)nR3 (R1, R3 = H or Me, R2 = CH2CH2 optionally having ≥1 OH group or C3-4 alkylene having ≥1 OH group, n = 1-70) and CHR4:CR5Y1O(R6O)oR7 (R4, R5 = H or C2-4 alkyl, Y1 = single bond or C1-4 alkylene, R6 = R2, R7 = R1, o = 1-70), 30-77 parts ≥1 ethylenically unsatd. sulfonic acid; 0-50 parts ≥1 of CH2:CR8CO2(R9O)p(R10O)qR11 (R8, R11 = R1, R9, R10 = R2, p = 1-70, q = 1-40) and CHR12:CR13Y1O(R14O)r(R15O)sR16 (R12, R13 = R4, R14, R15 = C2-4 alkylene optionally having ≥1 OH groups, R16 = R1, r = 1-70, s = 1-40); 0-30 parts ≥1 of CH2:CR17CO2(R18O)tR19 (R17 = R1, R18 = R15, R19 = C2-40 alkyl, C6-60 aryl, or C≤60 aralkyl, t = 1-70) and CHR20:CR21Y1O(R22O)uR23 (R20, R21 = H or C2-4 alkyl, R22 = R15, R23 = R19, u = 1-70); 0-30 parts ≥1 other water-soluble monomer such as ammonium group-containing (meth)acrylic compds., amine group-containing (meth)acrylic compds., (N-substituted) (meth)acrylamide, acrylonitrile, allyl alc., vinylpyridine, unsatd. acids, unsatd. acid anhydrides, unsatd. silanes, unsatd. phosphates, unsatd. phosphonates, N-vinyl compds.; and 0.001-50 parts ≥1 hydrophobic monomer. A typical **copolymer** was manufactured by radical polymerization of AMPS 83.93, CH2:CMeCO2(CH2CH2O)12.5Me 93.53, and Me methacrylate 23.48 parts in water.

IC ICM C08F220-58

CC 35-4 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 38, 40

ST heat sensitive water soluble polyoxyethylene methacrylate **copolymer** manuf; binder nonwoven fabric water soluble polyoxyethylene acrylate **copolymer**; adhesive water soluble polyoxyethylene acrylate **copolymer**; methyl methacrylate **copolymer** heat sensitive water soluble; AMPS **copolymer** manuf heat sensitive water soluble

IT Adhesives
Binders
Heat-sensitive materials
Nonwoven fabrics
(heat-sensitive, water-soluble **copolymers** based on (poly)ethoxylated (meth)acrylate for preparing adhesive films and binders for textile webs)

IT Hygiene
(heat-sensitive, water-soluble **copolymers** based on (poly)ethoxylated (meth)acrylate for preparing adhesive films and binders for textile webs for hygienic articles)

IT Polymers, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(water-soluble; heat-sensitive, water-soluble **copolymers** based on (poly)ethoxylated (meth)acrylate for preparing adhesive films and binders for textile webs)

IT 383369-01-5P, AMPS-methyl methacrylate-polyethylene glycol methyl ether methacrylate graft **copolymer** 383369-02-6P, AMPS-butyl methacrylate-polyethylene glycol methyl ether methacrylate graft **copolymer** **383369-03-7P**, AMPS-Adamquat MC80-methyl methacrylate-polyethylene glycol methyl ether methacrylate graft **copolymer** 383369-04-8P, AMPS-methacrylic acid-methyl methacrylate-polyethylene glycol methyl ether methacrylate graft **copolymer** 383876-14-0P, AMPS-**ethylene oxide** -methyl methacrylate graft **copolymer** methyl ether 383876-16-2P, AMPS-butyl methacrylate-**ethylene oxide** -graft **copolymer** methyl ether **383876-18-4P**, AMPS-Adamquat MC 80-**ethylene oxide**-methyl methacrylate graft **copolymer** methyl ether 383876-20-8P, AMPS-

ethylene oxide-methacrylic acid-methyl methacrylate-graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(heat-sensitive, water-soluble **copolymers** based on (poly)ethoxylated (meth)acrylate for preparing adhesive films and binders for textile webs)

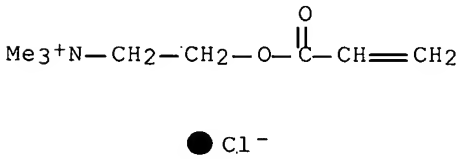
IT **383369-03-7P**, AMPS-Adamquat MC80-methyl methacrylate-polyethylene glycol methyl ether methacrylate graft **copolymer**
383876-18-4P, AMPS-Adamquat MC 80-**ethylene oxide**-methyl methacrylate graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(heat-sensitive, water-soluble **copolymers** based on (poly)ethoxylated (meth)acrylate for preparing adhesive films and binders for textile webs)

RN 383369-03-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-methyl-2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

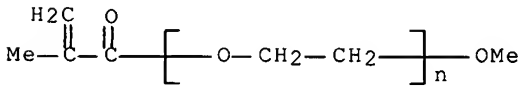
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



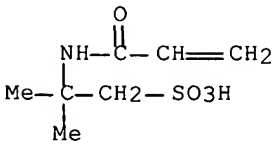
CM 2

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



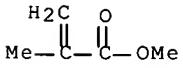
CM 3

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 4

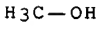
CRN 80-62-6
CMF C5 H8 O2



RN 383876-18-4 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-methyl-2-propenoate, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

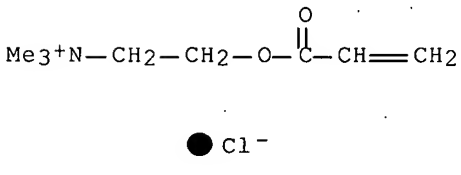


CM 2

CRN 383876-17-3
CMF (C8 H16 N O2 . C7 H13 N O4 S . C5 H8 O2 . C2 H4 O . Cl)x
CCI PMS

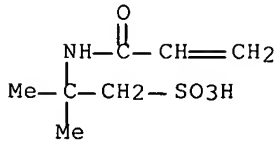
CM 3

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



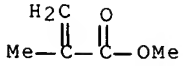
CM 4

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 5

CRN 80-62-6
CMF C5 H8 O2



CM 6

CRN 75-21-8
CMF C2 H4 O

L91 ANSWER 26 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:753083 HCAPLUS Full-text
DN 135:308587
TI Block **copolymers** having polyethylene glycol block and substituted polyethylene block and cosmetics containing them
IN Miyazawa, Kazuyuki; Kaneda, Isamu; Hariki, Toshio
PA Shiseido Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001288233	A	20011016	JP 2000-105252	20000406 <--
PRAI JP 2000-105252		20000406 <--		

AB The block **copolymers** contain a repeating unit CR1R2(CH2)qAO(C2H4O)nA(CH2)qCR1R2 (R1 = H, C1-6 alkyl; R2 = C1-6 alkyl, cyano; A = CO, NCO, CH2; n = 1-10,000; q = 1-6) and a repeating unit [CR3(BDJLE)(CH2)m] [B = CO, NCO, direct bond; D = O, N, NH, direct bond; JL = spacer or direct bond where J = C1-22 alkylene and L = NH, O, CO2, CONH,

NHCO2; m = 0, 1; p = 1-10,000; E = H, Ph, C1-22 linear, branched, or cyclic alkyl which may have F or OH, NHR7. NR7R8 (R7, R8 = C1-22 alkyl), (un)substituted C6-12 aryl, O(CH2)sSiR103 [R10 = C1-6 (fluoro)alkyl, Ph, OSiR113 (R11 = C1-6 alkyl, Ph); s = 1-6; ≥1 of R10 = OSiR113]', O(CH2)uSiR122(OSiR122OSiR122)vZ [R12 = C1-6 (fluoro)alkyl, Ph; Z = C1-6 alkyl, (CH2)uO, u = 1-6; v = 5-1000], cholesteryl, norbornyl, adamantyl, C6-12 cycloalkyl, C3-6 branched alkyl, vitamin D derivative or its analog, C6-22 linear unsatd. hydrocarbyl, ε-caprolactam derivative or its analog, tertiary amine, polyethylene glycol, polypropylene glycol, SO3H, CONH2, N+R3 (R = H, C1-6 alkyl), R'R''2N+CH2CO2- (R',R'' = C1-6 alkyl), sulfobetaine, CO2H, OPO(OH)2, OH, vinyl-containing heterocyclyl]. The block **copolymers** are useful as thickening agents, emulsifying agents, film-forming agents, pigment **dispersants**, transdermal absorption promoters. Cosmetics containing the block **copolymer** are also claimed. A hair-styling preparation was prepared from 2-methacryloxyethyldimethylammonium α-methylcarboxybetaine-Me methacrylate-oxirane-vinylpyrrolidone block **copolymer** (preparation given) 1, H2O 80, and EtOH 19 parts and evaluated.

IC ICM C08F293-00
ICS A61K007-00; A61K007-02; A61K007-027; A61K007-031; A61K007-032; A61K007-043; A61K007-11; A61K007-13; A61K007-38; A61K007-44

CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): **38**, 63

ST polyethylene glycol acrylate block **copolymer** cosmetic; cholesteryl acrylate polyethylene glycol block **copolymer** cosmetic; thickener polyethylene glycol acrylate block **copolymer** ; emulsifier polyethylene glycol acrylate block **copolymer**; film forming polyethylene glycol acrylate block **copolymer**; pigment **dispersant** polyethylene glycol acrylate block **copolymer**; transdermal absorption promoter polyethylene glycol acrylate block **copolymer**

IT **Polyoxyalkylenes, biological studies**
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acrylic, block; block **copolymers** of polyethylene glycol with substituted acrylic monomers as thickeners, emulsifiers, and film-forming agents for cosmetics)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-, block; block **copolymers** of polyethylene glycol with substituted acrylic monomers as thickeners, emulsifiers, and film-forming agents for cosmetics)

IT **Polyoxyalkylenes, biological studies**
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acrylic-polysiloxane-, block; block **copolymers** of polyethylene glycol with substituted acrylic monomers as thickeners, emulsifiers, and film-forming agents for cosmetics)

IT Cosmetics
Dispersing agents
Emulsifying agents
Thickening agents
(block **copolymers** of polyethylene glycol with substituted acrylic monomers as thickeners, emulsifiers, and film-forming agents for cosmetics)

IT Drug delivery systems
(transdermal, absorption promoters; block **copolymers** of polyethylene glycol with substituted acrylic monomers as thickeners, emulsifiers, and film-forming agents for cosmetics)

IT 136234-78-1P, Acrylic acid-oxirane block **copolymer**
366476-23-5P 366476-24-6P, Acrylic acid-oxirane-stearyl acrylate block **copolymer** 366476-25-7P, Acrylamide-N-hexylacrylamide-oxirane block **copolymer** 366476-26-8P 366476-27-9P 366476-28-0P 366476-29-1P 366476-30-4P, Hexyl acrylate-oxirane-styrene block **copolymer** **366476-31-5P** 366476-32-6P 366476-33-7P 366476-34-8P 366476-35-9P 366476-36-0P, Cholesteryl acrylate-dodecyl acrylate-oxirane block **copolymer** 366476-37-1P **366476-38-2P** 366476-39-3P 366476-40-6P 366476-42-8P 366476-44-0P 366491-33-0P, Acrylamide-2-acrylamido-2-methylpropanesulfonic acid-oxirane block **copolymer** 366491-34-1P, 2-1H,1H,2H,2H-Heptadecafluorodecyl acrylate-oxirane block **copolymer** 366491-35-2P, Butyl acrylate-methyl methacrylate-oxirane block **copolymer** 366491-36-3P, Oxirane-stearyl acrylate block **copolymer**
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(block **copolymers** of polyethylene glycol with substituted acrylic monomers as thickeners, emulsifiers, and film-forming agents for cosmetics)

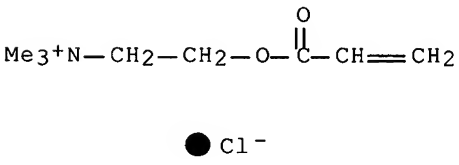
IT **366476-23-5P 366476-31-5P 366476-38-2P**
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(block **copolymers** of polyethylene glycol with substituted acrylic monomers as thickeners, emulsifiers, and film-forming agents for cosmetics)

RN 366476-23-5 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-hydroxyethyl 2-methyl-2-propenoate, oxirane and α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), block (9CI) (CA INDEX NAME)

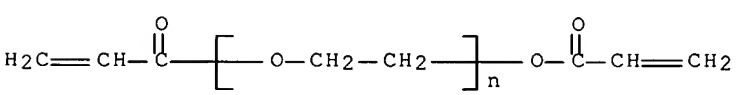
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



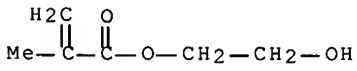
CM 2

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



CM 3

CRN 868-77-9
CMF C6 H10 O3



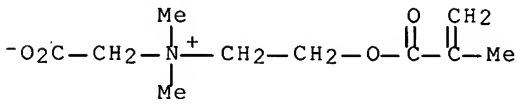
CM 4

CRN 75-21-8
CMF C2 H4 O

RN 366476-31-5 HCAPLUS
CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with 1-ethenyl-2-pyrrolidinone, methyl 2-methyl-2-propenoate and oxirane, block (9CI) (CA INDEX NAME)

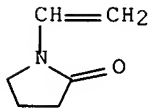
CM 1

CRN 62723-61-9
CMF C10 H17 N O4



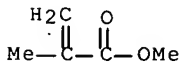
CM 2

CRN 88-12-0
CMF C6 H9 N O



CM 3

CRN 80-62-6
CMF C5 H8 O2



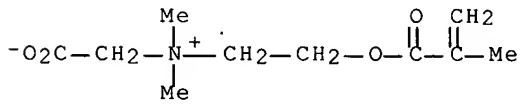
CM 4

CRN 75-21-8
CMF C2 H4 O

RN 366476-38-2 HCAPLUS
CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with 1,1-dimethylethyl 2-propenoate, 2,2,3,3,4,4,5,5-octafluoropentyl 2-methyl-2-propenoate and oxirane, block (9CI) (CA INDEX NAME)

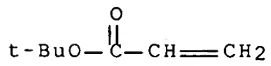
CM 1

CRN 62723-61-9
CMF C10 H17 N O4



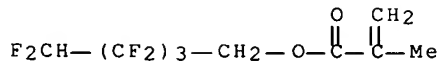
CM 2

CRN 1663-39-4
CMF C7 H12 O2



CM 3

CRN 355-93-1
CMF C9 H8 F8 O2



CM 4

CRN 75-21-8
CMF C2 H4 O

L91 ANSWER 27 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:565118 HCAPLUS Full-text
DN 135:137860
TI Saline aqueous **dispersions** of water soluble (co)polymers based on cationic monomers, method for making same and uses thereof
IN Riondel, Alain; Tembou, N'zudie Denis; Vanhoye, Didier
PA ATOFINA, Fr.
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001055226	A2	20010802	WO 2001-FR184	20010119 <--
	WO 2001055226	A3	20020131		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2804123	A1	20010727	FR 2000-832	20000124 <--
	FR 2804123	B1	20020222		
	AU 2001035563	A5	20010807	AU 2001-35563	20010119 <--
	EP 1252208	A2	20021030	EP 2001-907648	20010119 <--
	EP 1252208	B1	20040107		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003523463	T	20030805	JP 2001-561073	20010119 <--
	US 2003171489	A1	20030911	US 2002-181818	20021120 <--
PRAI	FR 2000-832	A	20000124 <--		
	WO 2001-FR184	W	20010119 <--		

AB Saline aqueous **dispersions** of water-soluble polymers containing polymeric **dispersants** are manufactured by radical-**dispersion** polymerization of monomer mixts. containing 2-100 mol (based on 100 mol monomer) CH2:CR1CO2CH(CH2NR22)2 (R1 = H or Me, R2 = Me, Et, Pr, or Bu) quaternized on ≥1 N so that the 4th

group is alkyl or PhCH2 and the anion is halide or MeOSO3-. A typical **dispersion** was manufactured by radical- **dispersion** polymerization of 27.26 parts 75% aqueous CH2:CHCO2CH(CH2N+Me2CH2Ph)2 2Cl- solution, 48.46 parts 50% aqueous acrylamide solution, and 19.16 parts 80% aqueous acryloyloxyethyltrimethylammonium chloride (I)solution in the presence of (NH4)2SO4 and 76.25:3.84:0.67:19.23 I-methacrylic acid-Sipomer SEM-styrene **copolymer dispersant**.

IC ICM C08F

CC 35-4 (Chemistry of Synthetic High **Polymers**)

ST saline aq **dispersion** polyelectrolyte manuf; bisbenzyldimethylammoniomethyl acrylate **copolymer** saline **dispersion** manuf; polyoxyethylene methacrylate trisbenzylphenoxy **copolymer dispersant** polyelectrolyte saline **dispersion** manuf; styrene **copolymer dispersant** polyelectrolyte saline **dispersion** manuf; methacrylic **copolymer dispersant** polyelectrolyte saline **dispersion** manuf; acryloyloxyethyltrimethylammonium **copolymer** polyelectrolyte saline **dispersion** manuf; acrylamide polyelectrolyte saline **dispersion** manuf

IT **Polyoxyalkylenes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT Polymerization
(emulsion, radical; manufacture of saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT Polyelectrolytes
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT Drying agents
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for dehydrating agents)

IT **Dispersing** agents
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for **dispersants**)

IT Flocculants
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for flocculants)

IT Paper
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for papermaking retention agents)

IT Wetting agents
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for textile wetting agents)

IT Thickening agents
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for thickeners)

IT **352201-75-3P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble

polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 9002-89-5, Polyvinyl alcohol 9003-05-8, Polyacrylamide 9011-13-6D, Maleic anhydride-styrene **copolymer**, imidized and quaternized **25322-68-3**, Polyethylene glycol 26062-79-3, Poly(diallyldimethylammonium chloride) 26427-01-0, Poly(3-acrylamidopropyltrimethylammonium chloride) 54076-97-0, Poly(acryloyloxyethyltrimethylammonium chloride)
RL: NUU (Other use, unclassified); USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 21567-35-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer precursor; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 5966-51-8, 1,3-Bis(dimethylamino)-2-propanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer precursor; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 352227-25-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 352230-45-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

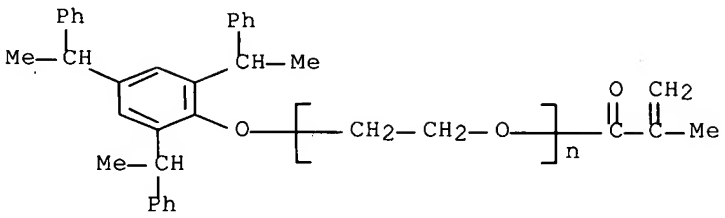
IT **352201-75-3P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

RN 352201-75-3 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene, α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl) and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

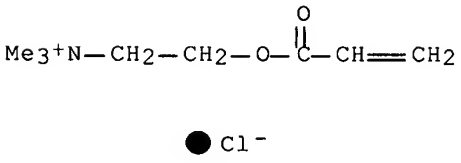
CM 1

CRN 174200-85-2
CMF (C2 H4 O)n C34 H34 O2
CCI PMS



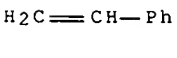
CM 2

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



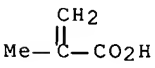
CM 3

CRN 100-42-5
CMF C8 H8

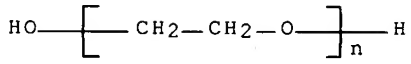


CM 4

CRN 79-41-4
CMF C4 H6 O2



IT **25322-68-3**, Polyethylene glycol
RL: NUU (Other use, unclassified); USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L91 ANSWER 28 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:565117 HCAPLUS Full-text
DN 135:137859
TI Salt-free aqueous **dispersions** of water-soluble (co)polymers based on cationic monomers, method for making same and uses thereof
IN Riondel, Alain; Tembou, N'zudie Denis; Vanhoye, Didier
PA ATOFINA, Fr.; Tembou N'zudie, Denis
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001055225	A2	20010802	WO 2001-FR183	20010119 <--
	WO 2001055225	A3	20020404		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2804122	A1	20010727	FR 2000-833	20000124 <--
	FR 2804122	B1	20020222		
	AU 2001035562	A5	20010807	AU 2001-35562	20010119 <--
	EP 1252207	A2	20021030	EP 2001-907647	20010119 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003523462	T	20030805	JP 2001-561072	20010119 <--
	US 2003153675	A1	20030814	US 2002-181821	20021120 <--
PRAI	FR 2000-833	A	20000124 <--		
	WO 2001-FR183	W	20010119 <--		

AB Salt-free aqueous **dispersions** of water-soluble polymers containing polymeric **dispersants** are manufactured by radical-**dispersion** polymerization of monomer mixts. containing 0.5-99.5 mol (based on 100 mol monomer) CH2:CR1CO2CH(CH2NR22)2 (R1 = H or Me, R2 = Me, Et, Pr, or Bu) which is quaternized on ≥1 N so that the 4th group on the N is alkyl or PhCH2 and the anion is halide or MeOSO3-. A typical **dispersion** was manufactured by radical-**dispersion** polymerization of 20 parts 75% aqueous CH2:CHCO2CH(CH2N+Me2CH2Ph)2 2Cl- solution, 67.5 parts 50% aqueous acrylamide solution, 28.12 parts 80% aqueous acryloyloxyethyltrimethylammonium chloride (I) solution, 3.75 parts Bu acrylate, and 0.0055 parts ethylene glycol dimethacrylate in the presence of a 76.25:3.84:0.67:19.23 I-methacrylic acid-Sipomer SEM-styrene **copolymer dispersant**.

IC ICM C08F
CC 35-4 (Chemistry of Synthetic High **Polymers**)
ST salt free **dispersion** polyelectrolyte manuf; polyoxyethylene methacrylate trisbenzylphenoxy polymeric **dispersant** polyelectrolyte **dispersion** manuf; methacrylic acid polymeric **dispersant** polyelectrolyte **dispersion** manuf; ethylene glycol dimethacrylate polyelectrolyte salt free **dispersion**;

butyl acrylate polyelectrolyte salt free **dispersion**; acryloyloxyethyltrimethylammonium chloride **copolymer** salt free **dispersion**; acrylamide polyelectrolyte salt free **dispersion**; bisbenzyldimethylammoniomethylmethyl acrylate **copolymer** salt free **dispersion**

IT Polymerization
(emulsion, radical; manufacture of salt-free **dispersions** of water-soluble (co)polymers from water-soluble monomers and quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT **Polyoxyalkylenes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(polymeric **dispersant**; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT Polyelectrolytes
(salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT Flocculants
(salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate for flocculants)

IT Drying agents
(salt-free **dispersions** of water-soluble (co)polymers from water-soluble monomers and quaternized bis(dialkylaminomethyl)methyl (meth)acrylate for dehydrating agents)

IT **Dispersing** agents
(salt-free **dispersions** of water-soluble (co)polymers from water-soluble monomers and quaternized bis(dialkylaminomethyl)methyl (meth)acrylate for **dispersants**)

IT Paper
(salt-free **dispersions** of water-soluble (co)polymers from water-soluble monomers and quaternized bis(dialkylaminomethyl)methyl (meth)acrylate for papermaking retention agents)

IT Wetting agents
(salt-free **dispersions** of water-soluble (co)polymers from water-soluble monomers and quaternized bis(dialkylaminomethyl)methyl (meth)acrylate for textile wetting agents)

IT Thickening agents
(salt-free **dispersions** of water-soluble (co)polymers from water-soluble monomers and quaternized bis(dialkylaminomethyl)methyl (meth)acrylate for thickeners)

IT 352201-73-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer precursor; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT 5966-51-8, 1,3-Bis(dimethylamino)-2-propanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer precursor; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT 352201-74-2P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT **352201-75-3P**

RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(polymeric **dispersant**; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT 9002-89-5, Polyvinyl alcohol 9003-05-8, Polyacrylamide **25322-68-3**, Polyethylene glycol 26062-79-3, Poly(diallyldimethylammonium chloride) 26427-01-0
RL: NUU (Other use, unclassified); USES (Uses)
(polymeric **dispersant**; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

IT 352201-76-4P
RL: IMF (Industrial manufacture); PREP (Preparation)
(salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

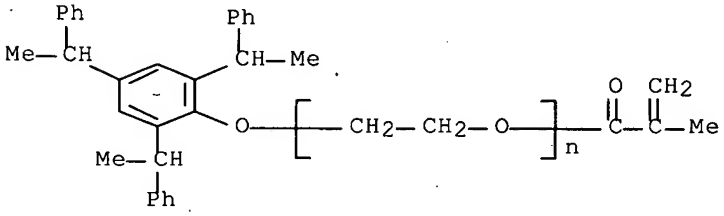
IT **352201-75-3P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(polymeric **dispersant**; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)

RN 352201-75-3 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene, α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl) and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

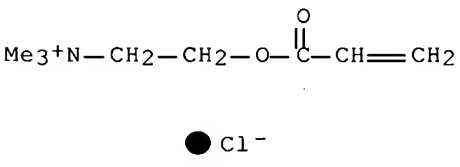
CM 1

CRN 174200-85-2
CMF (C2 H4 O)n C34 H34 O2
CCI PMS



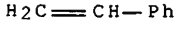
CM 2

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



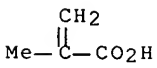
CM 3

CRN 100-42-5
CMF C8 H8

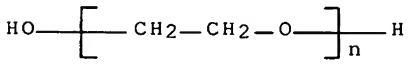


CM 4

CRN 79-41-4
CMF C4 H6 O2



IT **25322-68-3**, Polyethylene glycol
RL: NUU (Other use, unclassified); USES (Uses)
(polymeric **dispersant**; salt-free **dispersions** of water-soluble (co)polymers based on cationic monomers and containing quaternized bis(dialkylaminomethyl)methyl (meth)acrylate)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L91 ANSWER 29 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:565116 HCAPLUS Full-text
DN 135:137858
TI Water soluble saline aqueous **dispersions** of **copolymers** based on cationic monomers, method for making same and uses thereof
IN Riondel, Alain; Tembou N'Zudie, Denis; Legrand, Yvon; Vanhoye, Didier
PA ATOFINA, Fr.
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001055224	A2	20010802	WO 2001-FR181	20010119 <--
WO 2001055224	A3	20020117		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,

LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

FR 2804124	A1	20010727	FR 2000-835	20000124	<--
FR 2804124	B1	20020308			
AU 2001035560	A5	20010807	AU 2001-35560	20010119	<--
EP 1252206	A2	20021030	EP 2001-907645	20010119	<--
EP 1252206	B1	20040107			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004501208	T	20040115	JP 2001-561071	20010119	<--
US 2003166771	A1	20030904	US 2002-181974	20021105	<--
PRAI FR 2000-835	A	20000124	<--		
WO 2001-FR181	W	20010119	<--		

AB Saline aqueous **dispersions** of water-soluble polymers containing polymeric **dispersants** are manufactured by radical-**dispersion** polymerization of monomer mixts. containing 0.5-65 mol (based on 100 mol monomer) CH2:CR1CO2CH(CH2NR22)2 (R1 = H or Me, R2 = Me, Et, Pr, or Bu) quaternized on ≥1 N so that the 4th group is alkyl or PhCH2 and the anion is halide or MeOSO3- and 0.5-95 mol (based on 100 mol monomer) CH2CR1COA1B1NR2R3R4 X- [R1 = H or Me, A1 = O or NH, B1 = CH2CH2, CH2CH2CH2, or CH2CH(OH)CH2, R2 = (CH2)mMe or PhMe, m = 3-9, R3, R4 = Me or Et, X = anion] and(or) diethylaminoethyl (meth)acrylate quaternized by Me2SO4. A typical **dispersion** was manufactured by radical- **dispersion** polymerization of 20.43 parts 73.5% aqueous CH2:CHCO2CH(CH2N+Me2CH2Ph)2 2Cl- solution, 87.5 parts 50% aqueous acrylamide solution, 60.7 parts 80% aqueous acryloyloxyethyltrimethylammonium chloride (I)solution, and 15.85 parts 80% aqueous acryloyloxyethylbenzyldimethylammonium chloride solution in the presence of (NH4)2SO4 and 76.25:3.84:0.67:19.23 I-methacrylic acid-Sipomer SEM-styrene **copolymer dispersant**.

IC ICM C08F

CC 35-4 (Chemistry of Synthetic High **Polymers**)

ST saline aq **dispersion** polyelectrolyte manuf; bisbenzyldimethylammoniomethyl acrylate **copolymer** saline **dispersion** manuf; polyoxyethylene methacrylate trisbenzylphenoxy **copolymer dispersant** polyelectrolyte saline **dispersion** manuf; styrene **copolymer dispersant** polyelectrolyte saline **dispersion** manuf; methacrylic **copolymer dispersant** polyelectrolyte saline **dispersion** manuf; acryloyloxyethylbenzyldimethylammonium **copolymer** polyelectrolyte saline **dispersion** manuf; acryloyloxyethyltrimethylammonium **copolymer** polyelectrolyte saline **dispersion** manuf; acrylamide polyelectrolyte saline **dispersion** manuf

IT **Polyoxyalkylenes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT Polymerization
(emulsion, radical; manufacture of saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT Polyelectrolytes
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT Drying agents

(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for dehydrating agents)

IT **Dispersing** agents
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for **dispersants**)

IT Flocculants
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for flocculants)

IT Paper
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for papermaking retention agents)

IT Wetting agents
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for textile wetting agents)

IT Thickening agents
(saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants** for thickeners)

IT **352201-75-3P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 9002-89-5, Polyvinyl alcohol 9003-05-8, Polyacrylamide 9011-13-6D, Maleic anhydride-styrene **copolymer**, imidized and quaternized **25322-68-3**, Polyethylene glycol 26062-79-3, Poly(diallyldimethylammonium chloride) 26427-01-0, Poly(3-acrylamidopropyltrimethylammonium chloride) 54076-97-0, Poly(acryloyloxyethyltrimethylammonium chloride)
RL: NUU (Other use, unclassified); USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 21567-35-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer precursor; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 5966-51-8, 1,3-Bis(dimethylamino)-2-propanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer precursor; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT 352227-25-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

IT **352201-75-3P**
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); **PREP (Preparation)**; USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble

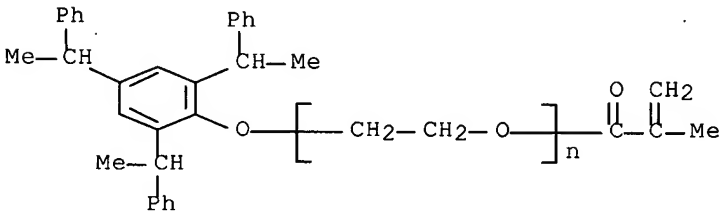
polymers based on cationic monomers prepared in presence of polymeric **dispersants**)

RN 352201-75-3 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene, α-(2-methyl-1-oxo-2-propenyl)-ω-[2,4,6-tris(1-phenylethyl)phenoxy]poly(oxy-1,2-ethanediyl) and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

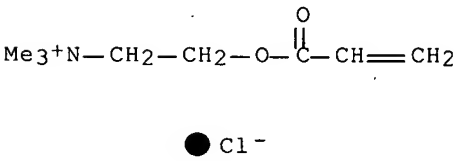
CM 1

CRN 174200-85-2
CMF (C2 H4 O)n C34 H34 O2
CCI PMS



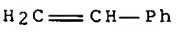
CM 2

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



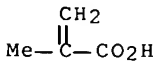
CM 3

CRN 100-42-5
CMF C8 H8

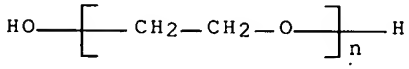


CM 4

CRN 79-41-4
CMF C4 H6 O2



IT **25322-68-3**, Polyethylene glycol
RL: NUU (Other use, unclassified); USES (Uses)
(**dispersant**; saline aqueous **dispersions** of water-soluble polymers based on cationic monomers prepared in presence of polymeric **dispersants**)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L91 ANSWER 30 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:129691 HCAPLUS Full-text
DN 134:183280
TI Cationic polymer bases for hair-styling preparations
IN Uchiyama, Yujiro
PA Osaka Yuki Kagaku Kogyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

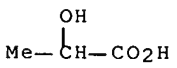
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001048755	A	20010220	JP 1999-220201	19990803 <--
PRAI JP 1999-220201		19990803 <--		

AB The bases comprise **copolymers** from monomers containing CH2:CR1COXR2N+Me2CH2CO2- 1-30, CH2:CR1COXR2NMe2 1-30, and CH2:CHNHCOR1 and/or N-vinylpyrrolidone (NVP) 40-90 weight% (X = O, NH; R1 = H, Me; R2 = C2-3 alkylene). A hair-styling lotion containing a **copolymer** from N-methacryloyloxyethyl-N,N-dimethylammonium-α-N-methylcarboxybetaine 20, N,N-dimethylaminoethyl methacrylate 5, NVP 60, and N-vinylacetamide 15 weight parts improved hair curl retention and showed hair-conditioning effects.
IC ICM A61K007-06
ICS A61K007-11; C08F220-34; C08F226-02
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): **35**
IT **Polyoxyalkylenes, biological studies**
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acrylic; cationic polymer bases for hair-styling prepns.)
IT 326833-04-9P 326833-06-1P 326833-07-2P 326833-09-4P 326833-11-8P **326833-13-0P** 326833-14-1P 326833-15-2P
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(cationic polymer bases for hair-styling prepns.)
IT **326833-13-0P**
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(cationic polymer bases for hair-styling prepns.)

RN 326833-13-0 HCAPLUS
CN 1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[(1-oxo-2-propenyl)amino]-, inner salt, polymer with N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium inner salt, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, N-[3-(dimethylamino)propyl]-2-propenamide, N-(1,1-dimethylethyl)-2-propenamide, N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, 1-ethenyl-2-pyrrolidinone, 2-hydroxyethyl 2-methyl-2-propenoate and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), 2-hydroxypropanoate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 50-21-5
CMF C3 H6 O3

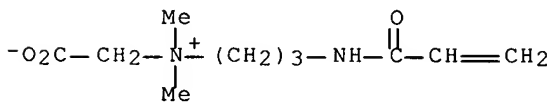


CM 2

CRN 326833-12-9
CMF (C10 H18 N2 O3 . C10 H17 N O4 . C9 H15 N O2 . C8 H16 N2 O . C8 H15 N O2 . C7 H13 N O . C6 H10 O3 . C6 H9 N O . (C2 H4 O)n C5 H8 O2)x
CCI PMS

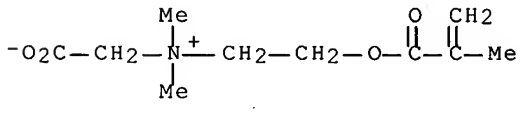
CM 3

CRN 79702-44-6
CMF C10 H18 N2 O3



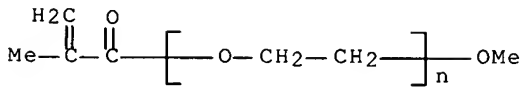
CM 4

CRN 62723-61-9
CMF C10 H17 N O4



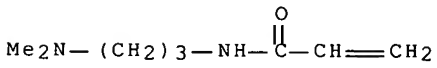
CM 5

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



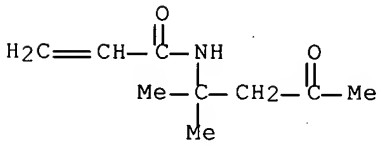
CM 6

CRN 3845-76-9
CMF C8 H16 N2 O



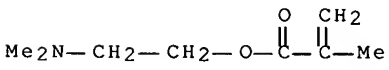
CM 7

CRN 2873-97-4
CMF C9 H15 N O2



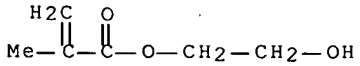
CM 8

CRN 2867-47-2
CMF C8 H15 N O2



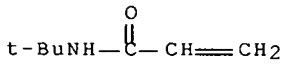
CM 9

CRN 868-77-9
CMF C6 H10 O3



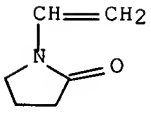
CM 10

CRN 107-58-4
CMF C7 H13 N O



CM 11

CRN 88-12-0
CMF C6 H9 N O



L91 ANSWER 31 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:63835 HCAPLUS Full-text
DN 134:131954
TI Fat-binding polymers for use with lipase inhibitors
IN Jozefiak, Thomas Henry; Mandeville, W. Harry, III; Holmes-Farley, Stephen Randall; Huval, Chad Cori; Garigapati, Venkata R.; Shackett, Keith K.; Concagh, Danny
PA Geltex Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001005408	A1	20010125	WO 1999-US15958	19990714 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2379308	A1	20010125	CA 1999-2379308	19990714 <--
AU 9949957	A	20010205	AU 1999-49957	19990714 <--
AU 774636	B2	20040701		

EP 1196181 A1 20020417 EP 1999-934037 19990714 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
NZ 516554 A 20030829 NZ 1999-516554 19990714 <--
MX 2002PA00492 A 20020702 MX 2002-PA492 20020114 <--
PRAI WO 1999-US15958 W 19990714 <--

AB Polymers having ether and(or) N-containing side chains are manufactured for use in binding fat for treatment of obesity. A typical polymer was manufactured by radical polymerization of N-decylacrylamide 2.83, 3-acrylamidopropyltrimethylammo nium chloride 18.45, and acrylamide 13.33 g.

IC ICM A61K031-785
ICS A61P003-00; A61K031-785; A61K031-335

CC 35-4 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 63

ST fat binding nitrogen contg side chain polymer manuf; decylacrylamide acrylaminopropyltrimethylammonium chloride acrylamide **copolymer** manuf fat binding; ether contg side chain polymer manuf fat binding

IT 109-55-7DP, 3-(Dimethylamino)propylamine, reaction products with ethylene-maleic anhydride alternating **copolymer** 540-51-2DP, 2-Bromoethanol, reaction products with polyethylenimine 556-52-5DP, Glycidol, reaction products with polyallylamine hydrochloride 590-92-1DP, 3-Bromopropionic acid, reaction products with polyethylenimine 1002-69-3DP, 1-Chlorodecane, reaction products with allylamine-diallyldimethylammonium chloride **copolymer** and chloroacetic acid 1120-71-4DP, 1,3-Propanesultone, reaction products with polydiallylmethylamine hydrochloride 9002-98-6DP, Polyethylenimine, reaction products with bromopropionic acid 9039-82-1DP, Polyethylene glycol glycidyl nonylphenyl ether, reaction products with polydiallylmethylamine hydrochloride 25805-17-8DP, Poly(2-ethyl-2-oxazoline), partially hydrolyzed 26063-69-4DP, Polydiallylamine hydrochloride, functionalized 26403-72-5DP, Polyethylene glycol diglycidyl ether, reaction products with polydiallylmethylamine hydrochloride 26427-01-0P, Poly(3-acrylamidopropyltrimethylammonium chloride) 32765-81-4DP, 6-Bromohexyltrimethylammonium bromide, reaction products with polydiallylamine hydrochloride 34447-60-4P, Acrylamide-diallylammonium chloride **copolymer** 40349-67-5DP, Polyethylene glycol glycidyl methyl ether, reaction products with polydiallylmethylamine hydrochloride 51729-06-7P, Diallyldimethylammonium chloride-vinyl alcohol **copolymer** 53694-17-0P, Acrylic acid-diallyldimethylammonium chloride **copolymer** 55553-13-4DP, Poly(diallylmethylamine), functionalized 62238-80-6DP, Polydiallylamine, functionalized 68240-11-9P, Acrylamide-diallylmethylamine hydrochloride **copolymer** 71550-12-4DP, Polyallylamine hydrochloride, functionalized 73354-75-3P, Poly(N,N-diallyl-2-hydroxyethylamine hydrochloride) 75150-29-7P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride **copolymer** 76123-63-2P 83601-65-4P, (3-Acrylamidopropyl)trimethylammonium chloride-styrene **copolymer** 84154-72-3P, Acrylamide-N-[3-(dimethylamino)propyl]acrylamide **copolymer** 86630-59-3DP, Polyethylene glycol glycidyl lauryl ether, reaction products with polydiallylmethylamine hydrochloride 106973-21-1DP, Ethylene-maleic anhydride alternating **copolymer**, reaction products with dimethylaminopropylamine 131479-66-8P, (3-Acrylamidopropyl)trimethylammonium chloride-acrylic acid **copolymer** 151274-11-2P, (3-Acrylamidopropyl)trimethylammonium chloride-N-vinyl-2-pyrrolidone **copolymer** 164719-55-5DP, Allylamine-diallyldimethylammonium chloride **copolymer**, reaction products with chloroacetic acid 165957-71-1P, Acrylamide-3-methyl-1-vinylimidazolium chloride **copolymer** 321903-78-0P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-N-

decylacrylamide **copolymer** 321903-79-1P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-N,N-didecylacrylamide **copolymer** 321903-80-4P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-N-phenylacrylamide **copolymer** 321903-81-5P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-N-benzylacrylamide **copolymer** 321903-82-6P, (3-Acrylamidopropyl)trimethylammonium chloride-N-tert-octylacrylamide **copolymer** 321903-83-7P, (3-Acrylamidopropyl)trimethylammonium chloride-N-butylacrylamide **copolymer** 321903-85-9P, Poly(2-methacryloyloxyethyl-tert-butylamine hydrochloride) 321903-86-0P 321903-87-1P 321903-88-2P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-N-octadecylacrylamide **copolymer** 321903-89-3P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-N-methyl-N-octadecylacrylamide **copolymer** 321903-91-7P, Acrylamide-N-dodecylacrylamide-3-methyl-1-vinylimidazolium chloride **copolymer** 321903-92-8P, (3-Acrylamidopropyl)trimethylammonium chloride-N-ethylacrylamide **copolymer 321903-93-9P**, (3-Acrylamidopropyl)trimethylammonium chloride-polyethylene glycol acrylate methyl ether graft **copolymer** 321903-94-0P 321903-95-1P 321903-96-2P 321903-97-3P 321903-98-4P, Acrylamide-N-[3-(dimethylamino)propyl]acrylamide-N-dodecylacrylamide **copolymer** 321904-00-1P **321904-01-2P**, Diallyldimethylammonium chloride-polyethylene glycol acrylate methyl ether graft **copolymer** 321904-02-3P 321904-03-4P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-N-octylacrylamide **copolymer** 321904-04-5P, Acrylamide-(3-acrylamidopropyl)trimethylammonium chloride-methylenebisacrylamide-N-dodecylacrylamide **copolymer** 321904-05-6P 321904-16-9P **321936-94-1P**, (3-Acrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** methyl ether 321936-96-3P, Diallyldimethylammonium chloride-**propylene oxide** graft **copolymer** methyl ether **321936-97-4P**, Diallyldimethylammonium chloride-polypropylene glycol acrylate methyl ether graft **copolymer** 321936-99-6P, Diallyldimethylammonium chloride-**ethylene oxide** graft **copolymer** methyl ether
RL: IMF (Industrial manufacture); PRP (Properties); **PREP (Preparation)**
(fat-binding polymers for use with lipase inhibitors)

IT 26062-79-3, Polydiallyldimethylammonium chloride 26658-46-8 68555-36-2, Bis(2-chloroethyl) ether-1,3-bis[3-(dimethylamino)propyl]urea alternating **copolymer**
RL: PRP (Properties)
(fat-binding polymers for use with lipase inhibitors)

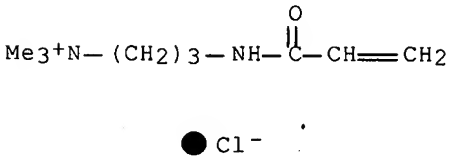
IT **321903-93-9P**, (3-Acrylamidopropyl)trimethylammonium chloride-polyethylene glycol acrylate methyl ether graft **copolymer** **321904-01-2P**, Diallyldimethylammonium chloride-polyethylene glycol acrylate methyl ether graft **copolymer 321936-94-1P**, (3-Acrylamidopropyl)trimethylammonium chloride-**ethylene oxide** graft **copolymer** methyl ether **321936-97-4P**, Diallyldimethylammonium chloride-polypropylene glycol acrylate methyl ether graft **copolymer**
RL: IMF (Industrial manufacture); PRP (Properties); **PREP (Preparation)**
(fat-binding polymers for use with lipase inhibitors)

RN 321903-93-9 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

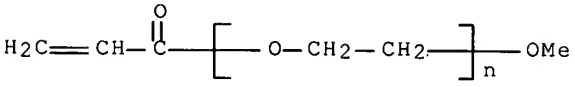
CM 1

CRN 45021-77-0
CMF C9 H19 N2 O . Cl



CM 2

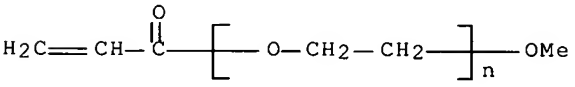
CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



RN 321904-01-2 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

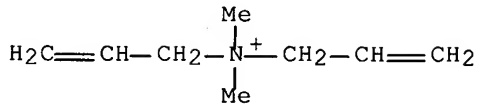
CM 1

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 2

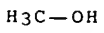
CRN 7398-69-8
CMF C8 H16 N . Cl



RN 321936-94-1 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)amino]-, chloride, polymer with oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

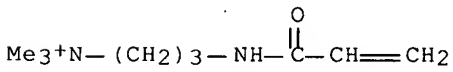


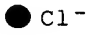
CM 2

CRN 321936-93-0
CMF (C9 H19 N2 O . C2 H4 O . Cl)x
CCI PMS

CM 3

CRN 45021-77-0
CMF C9 H19 N2 O . Cl





CM 4

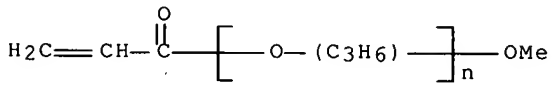
CRN 75-21-8
CMF C2 H4 O

RN 321936-97-4 HCAPLUS
CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with

α-(1-oxo-2-propenyl)-ω-methoxypoly[oxy(methyl-1,2-ethanediyl)], graft (9CI) (CA INDEX NAME)

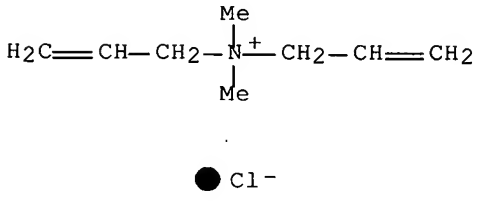
CM 1

CRN 83844-54-6
CMF (C3 H6 O)n C4 H6 O2
CCI IDS, PMS



CM 2

CRN 7398-69-8
CMF C8 H16 N . Cl



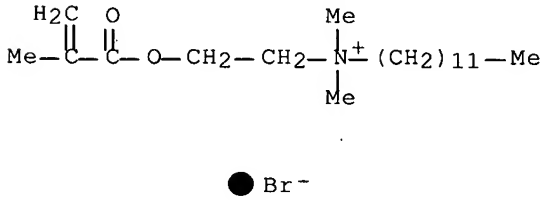
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 32 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:21945 HCAPLUS Full-text
DN 134:208250
TI Anionic polymerization of monomers bearing quaternary ammonium groups 1. Polymerization of methacrylate derivatives
AU Novakov, Christo; Vladimirov, Nikolay; Stamenova, Rayna; Tsvetanov, Christo
CS Institute of Polymers, Bulgarian Academy of Sciences, Sofia, 1113, Bulg.
SO Macromolecular Symposia (2000), 161(Controlled Synthesis of Functionalized Polymers), 169-181
CODEN: MSYMEC; ISSN: 1022-1360
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB Amphiphilic surface-active vinyl monomers alkyl[2-(methacryloyloxy)ethyl]dimethylammonium bromides, where alkyl is Bu or dodecyl have been investigated with respect to their polymerization behavior in the presence of various anionic initiators (Bu2Mg, tert-BuOK, calcium amide alkoxide). In most cases, the products consist of a low-mol.-weight fraction (Mw up to 5000) and a high-mol.-weight fraction (Mw up to 120 000). Block **copolymers** of the quaternary ammonium monomers with **ethylene oxide** show associative behavior in aqueous solns.
CC 35-4 (Chemistry of Synthetic High **Polymers**)

Section cross-reference(s): 46
ST anionic polymn methacryloyloxyethyl dodecyl dimethylammonium bromide **ethylene oxide**; catalyst anionic polymn butyl magnesium calcium amide
IT **Polyoxyalkylenes, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(anionic polymerization of methacrylate monomers bearing quaternary ammonium groups)
IT 96526-36-2P, Dodecyl[2-(methacryloyloxy)ethyl]dimethylammonium bromide homopolymer 107310-72-5P, Butyl[2-(methacryloyloxy)ethyl]dimethylammonium bromide homopolymer **328402-01-3P**, Dodecyl[2-(methacryloyloxy)ethyl]dimethylammonium bromide-**ethylene oxide** block **copolymer**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(amphiphile; anionic polymerization of methacrylate monomers bearing quaternary ammonium groups)
IT **25322-68-3**
RL: NUU (Other use, unclassified); USES (Uses)
(anionic polymerization of methacrylate monomers bearing quaternary ammonium groups)
IT 23321-74-6, Calcium amide
RL: CAT (Catalyst use); USES (Uses)
(**ethylene oxide**-modified, polymerization catalyst; anionic polymerization of methacrylate monomers bearing quaternary ammonium groups)
IT **328402-01-3P**, Dodecyl[2-(methacryloyloxy)ethyl]dimethylammonium bromide-**ethylene oxide** block **copolymer**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(amphiphile; anionic polymerization of methacrylate monomers bearing quaternary ammonium groups)
RN 328402-01-3 HCAPLUS
CN 1-Dodecanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, bromide, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

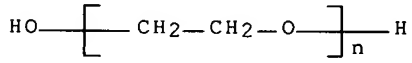
CRN 96526-35-1
CMF C20 H40 N O2 . Br



CM 2

CRN 75-21-8
CMF C2 H4 O

IT **25322-68-3**
RL: NUU (Other use, unclassified); USES (Uses)
(anionic polymerization of methacrylate monomers bearing quaternary ammonium groups)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 33 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:175784 HCAPLUS Full-text
DN 132:223020
TI Water-soluble, hydrolytically-stable amphoteric monomer and polymers stable in a surfactant system
IN Yeung, Dominic W. K.; Lem, Stanley
PA Rhodia Inc., USA
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000014053	A1	20000316	WO 1999-US19801	19990827 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9955894	A1	20000327	AU 1999-55894	19990827 <--
PRAI US 1998-99544P	P	19980909 <--		
US 1998-99544	P	19980909 <--		
WO 1999-US19801	W	19990827 <--		

OS MARPAT 132:223020
AB A quaternized aminoalkyl (meth)acrylamide monomer CH2:C(R)CONH(CH2)nN+(R1R2)(CH2)mCOO- (I; R = H or C1-4-alkyl, typically H or Me; R1 and R2 = C1-18-alkyl, typically C1-4-alkyl, more typically Me or Et; n = 2-10, typically 2, 3, or 4 and m = 1-10, typically 1, 2, 3, or 4) and its betaine-type homopolymer and **copolymer** is useful in a personal care formulation. Thus, the quaternary adduct of dimethylaminopropylmethacrylamide with Na monochloroacetate gave an amphoteric monomer suitable for homopolymn.

or **copolymn**. The homopolymer formed clear solution with 10% Rhodapex ES2, 12% Miracare MPC, and 10% ammonium lauryl sulfate surfactants.

IC ICM C07C233-36
ICS A61K007-06

CC 35-2 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 37, 46, 62

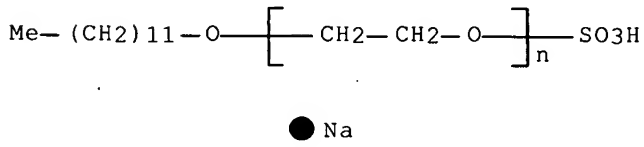
IT **9004-82-4**, Rhodapex ES 2 261373-92-6, Miracare MPC
RL: TEM (Technical or engineered material use); USES (Uses)
(water-soluble, hydrolytically-stable amphoteric monomer and betaine-type polymers stable in a surfactant system for)

IT 260808-13-7P 260808-16-0P 260808-21-7P 260808-26-2P 260808-30-8P
260808-33-1P 260808-36-4P 260808-39-7P 260808-42-2P 260808-45-5P
260808-47-7P 260808-50-2P **260808-52-4P 260808-54-6P**
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(water-soluble, hydrolytically-stable amphoteric monomer and polymers stable in a surfactant system)

IT **9004-82-4**, Rhodapex ES 2
RL: TEM (Technical or engineered material use); USES (Uses)
(water-soluble, hydrolytically-stable amphoteric monomer and betaine-type polymers stable in a surfactant system for)

RN 9004-82-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-sulfo-ω-(dodecyloxy)-, sodium salt (1:1) (CA INDEX NAME)



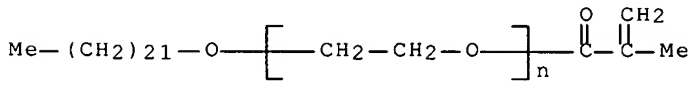
IT **260808-52-4P 260808-54-6P**
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(water-soluble, hydrolytically-stable amphoteric monomer and polymers stable in a surfactant system)

RN 260808-52-4 HCAPLUS

CN 1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, inner salt, polymer with 1-ethenyl-2-pyrrolidinone and α-(2-methyl-1-oxo-2-propenyl)-ω-(docosyloxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

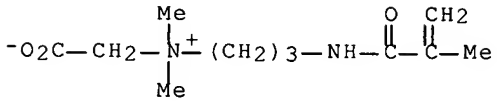
CM 1

CRN 115047-92-2
CMF (C2 H4 O)n C26 H50 O2
CCI PMS



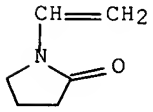
CM 2

CRN 83623-26-1
CMF C11 H20 N2 O3



CM 3

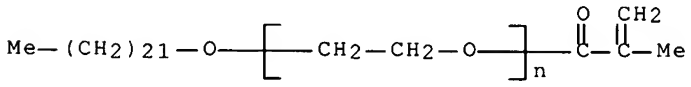
CRN 88-12-0
CMF C6 H9 N O



RN 260808-54-6 HCAPLUS
CN 1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-, inner salt, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-(docosyloxy)poly(oxy-1,2-ethanediyl) and 2-propenamide (9CI) (CA INDEX NAME)

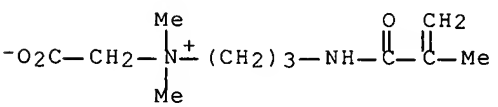
CM 1

CRN 115047-92-2
CMF (C2 H4 O)n C26 H50 O2
CCI PMS



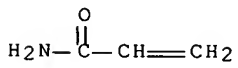
CM 2

CRN 83623-26-1
CMF C11 H20 N2 O3



CM 3

CRN 79-06-1
CMF C3 H5 N O



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 34 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:538139 HCAPLUS Full-text
DN 131:170774
TI Preparation and use of water-soluble or water-swellable **copolymers** containing sulfo groups
IN Albrecht, Gerhard; Huber, Christian; Schuhbeck, Manfred; Weichmann, Josef; Kern, Alfred
PA SKW Trostberg A.-G., Germany
SO Ger. Offen., 16 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19806482	A1	19990819	DE 1998-19806482	19980217 <--
CA 2262068	A1	19990817	CA 1999-2262068	19990216 <--
EP 936228	A1	19990818	EP 1999-103065	19990216 <--
EP 936228	B1	20030723		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11335426	A	19991207	JP 1999-37280	19990216 <--
US 6187887	B1	20010213	US 1999-250327	19990216 <--
AT 245666	T	20030815	AT 1999-103065	19990216 <--
ES 2205612	T3	20040501	ES 1999-103065	19990216 <--
PRAI DE 1998-19806482	A	19980217 <--		

AB The title **copolymers**, useful in hydraulic binders for use in construction and in aqueous coatings, contain N-(sulfoalkyl)amido groups 3-96, amido or carbamyl groups 3-96, quaternary ammonium groups 0.05-75, and polyoxyalkylene ester or ether groups (all of specified structure) 0.01-50 mol%. Aqueous redox polymerization of 2-acrylamido-2-methyl-1-propanesulfonic acid 99.4, N,N-dimethylacrylamide 207.9, [2-(methacryloyloxy)ethyl]trimethylamm onium chloride 11, and polyethylene glycol Me ether methacrylate (mol. weight 750) 1.7 mmol gave a viscous, 6.3% solution of **copolymer** which was dried and milled to give 45 g hard, white granules. Use of the **copolymers** as binders for cement, plaster and mortar is exemplified.

IC ICM C08F220-58
ICS C08F220-52; C08F220-34; C08F220-10; C04B024-26; C09D133-26; C09D133-14
CC 35-4 (Chemistry of Synthetic High **Polymers**)
Section cross-reference(s): 42, 58
ST sulfonic acid **copolymer** binder; quaternary ammonium **copolymer** binder; amide **copolymer** binder;

polyoxyalkylene **copolymer** binder; binder hydraulic ionic polymer; coating binder ionic polymer; cement binder ionic polymer; mortar binder ionic polymer

IT Sulfonic acids, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(unsatd., **copolymers** with unsatd. amides, quaternary ammonium compds. and polyoxyalkylenes; preparation and use of water-soluble or water-swellable **copolymers** containing sulfo groups)

IT Quaternary ammonium compounds, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(unsatd., **copolymers** with unsatd. sulfonic acids, amides and polyoxyalkylenes; preparation and use of water-soluble or water-swellable **copolymers** containing sulfo groups)

IT **Polyoxyalkylenes, preparation**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(unsatd., **copolymers** with unsatd. sulfonic acids, quaternary ammonium compds. and amides; preparation and use of water-soluble or water-swellable **copolymers** containing sulfo groups)

IT Amides, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(unsatd., **copolymers** with unsatd. sulfonic acids, quaternary ammonium compds. and polyoxyalkylenes; preparation and use of water-soluble or water-swellable **copolymers** containing sulfo groups)

IT Binders
(water-soluble or water-swellable **copolymers** containing sulfo groups as hydraulic binders)

IT Cement (construction material)
(water-soluble or water-swellable **copolymers** containing sulfo groups as hydraulic binders for cement)

IT Mortar
(water-soluble or water-swellable **copolymers** containing sulfo groups as hydraulic binders for mortar)

IT Plaster
(water-soluble or water-swellable **copolymers** containing sulfo groups as hydraulic binders for plaster)

IT Coating materials
(water-thinned; water-soluble or water-swellable **copolymers** containing sulfo groups as binders for coatings)

IT **238098-13-0P 238098-14-1P** 238098-15-2P
238098-16-3P 238098-17-4P 238098-18-5P 238098-19-6P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(preparation and use of water-soluble or water-swellable **copolymers** containing sulfo groups)

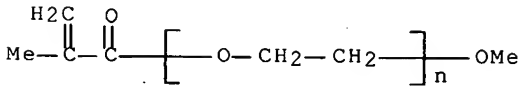
IT **238098-13-0P 238098-14-1P 238098-16-3P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(preparation and use of water-soluble or water-swellable **copolymers** containing sulfo groups)

RN 238098-13-0 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with N,N-dimethyl-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

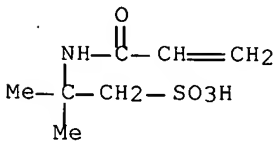
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



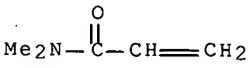
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 3

CRN 2680-03-7
CMF C5 H9 N O

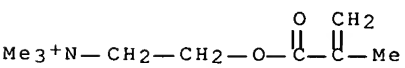


CM 4

CRN 6891-44-7
CMF C9 H18 N O2 . C H3 O4 S

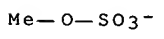
CM 5

CRN 33611-56-2
CMF C9 H18 N O2



CM 6

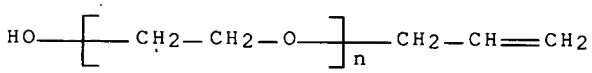
CRN 21228-90-0
CMF C H3 O4 S



RN 238098-14-1 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with N,N-dimethyl-2-propenamide, 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and α-2-propenyl-ω-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

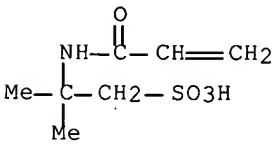
CM 1

CRN 27274-31-3
CMF (C2 H4 O)n C3 H6 O
CCI PMS



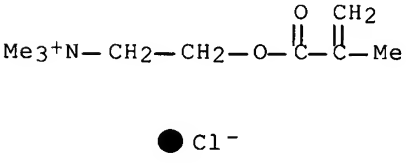
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



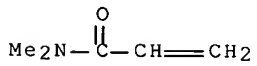
CM 3

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 4

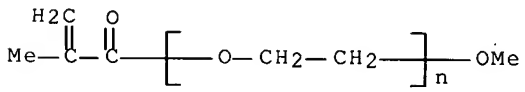
CRN 2680-03-7
CMF C5 H9 N O



RN 238098-16-3 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and 2-propenamide (9CI) (CA INDEX NAME)

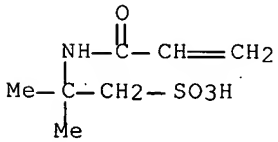
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



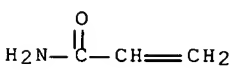
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



CM 3

CRN 79-06-1
CMF C3 H5 N O

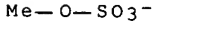


CM 4

CRN 13106-44-0
CMF C8 H16 N O2 . C H3 O4 S

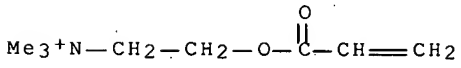
CM 5

CRN 21228-90-0
CMF C H3 O4 S



CM 6

CRN 20284-80-4
CMF C8 H16 N O2



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 35 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:342634 HCAPLUS Full-text
DN 131:116640
TI Variations in the diallyldimethylammonium chloride (DADMAC) polymers architectures. PEG/DADMAC blocks and partially quaternized polymers
AU Tirelli, Nicola; Hunkeler, David J.
CS Laboratory Polymers Biomaterials, Department Chemistry, Swiss Federal Institute Technology, Lausanne, CH-1015, Switz.
SO Macromolecular Chemistry and Physics (**1999**), 200(5), 1068-1073
CODEN: MCHPES; ISSN: 1022-1352
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB New DADMAC-based macromol. architectures were prepared, varying the permanent charge distribution in the polycation structure. DADMAC and PEG-containing block **copolymers** with (AB)n and ABCBA structures were synthesized via condensation together with thermal and redox radical polymerization Polymers with a randomly reduced charge d. were, on the other hand, obtained via polymer-analogous reactions based on the de-quaternarization of the ammonium groups.
CC 35-8 (Chemistry of Synthetic High **Polymers**)
IT **Polyoxyalkylenes, preparation**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(block **copolymers** with unsatd. monomers; preparation of diallyldimethylammonium chloride partially quaternized and multiblock polymers with poly(ethylene glycol))
IT **Polyoxyalkylenes, preparation**
Polyoxyalkylenes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyester-, block; in preparation of diallyldimethylammonium chloride partially quaternized and multiblock polymers with poly(ethylene glycol))

IT 26062-79-3DP, dequaternized 204906-33-2P **232616-96-5P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of diallyldimethylammonium chloride partially quaternized and multiblock polymers with poly(ethylene glycol))

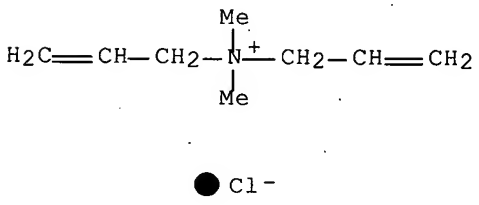
IT **232616-96-5P**
RL: PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of diallyldimethylammonium chloride partially quaternized and multiblock polymers with poly(ethylene glycol))

RN 232616-96-5 HCAPLUS

CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with oxirane and N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride, block (9CI) (CA INDEX NAME)

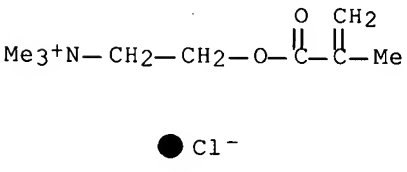
CM 1

CRN 7398-69-8
CMF C8 H16 N . Cl



CM 2

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 3

CRN 75-21-8
CMF C2 H4 O

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 36 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:341604 HCAPLUS Full-text
DN 129:28364
TI Manufacture of acrylic **copolymers** with antimicrobial properties
IN Hill, Frank +di; Pfirmann, Martina
PA Rohm GmbH, Germany; Hill, Hella; Klesse, Wolfgang; Pfirmann, Martina
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9821253	A1	19980522	WO 1997-EP5806	19971021 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	DE 19646965	A1	19980604	DE 1996-19646965	19961114 <--
	DE 19646965	C2	19990812		
	DE 19654897	A1	19980604	DE 1996-19654897	19961114 <--
	CA 2271776	A1	19980522	CA 1997-2271776	19971021 <--
	AU 9850514	A	19980603	AU 1998-50514	19971021 <--
	EP 938511	A1	19990901	EP 1997-913168	19971021 <--
	EP 938511	B1	20020227		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	JP 2001504531	T	20010403	JP 1998-522086	19971021 <--
	ES 2173432	T3	20021016	ES 1997-913168	19971021 <--
	US 6194530	B1	20010227	US 1999-308130	19990716 <--
PRAI	DE 1996-19646965	A	19961114 <--		
	DE 1996-19654897	A	19961114 <--		
	WO 1997-EP5806	W	19971021 <--		

AB Antimicrobial polymers, useful for plastics or coatings with antimicrobial surface, comprise 99-40% nonfunctional vinyl monomers and 1-60% functional vinyl monomers [V-Ay-HSp]mN+(R1)4-(m+t)-(R2)t·X- [A = (un)interrupted aliphatic or aromatic linking unit; HSp = (poly)oxyalkylene hydrophilic spacer; R1 = Me, Et, PhCH2; R2 = C8-20 alkyl; V = vinyl, (meth)acryloyl, allyl, styryl; X = Cl, Br, iodo, alkyl sulfate; m, t = 1-3; y = 0, 1]. The **copolymers** were prepared by radical **copolymn**. of nonfunctional and functional vinyl monomers, especially ethoxylated, MeCl-quaternized fatty amine methacrylate esters CH2:CMeCO(OCH2CH2)uN+Me(C12H25)[(CH2CH2O)vCOCMe:CH2]·Cl- (I) (u + v = 10) and CH2:CMeCO(OCH2CH2)2N+Me2(C14H29)Cl-. For example, a title **copolymer** was prepared by radical polymerization of I (preparation by transesterification of Marlazin L 10 with Me methacrylate and quaternization with MeCl given) with Me methacrylate and Bu acrylate.

IC ICM C08F246-00
ICS C08F220-34; C07C217-08; C07C219-08; A01N033-12
CC 35-4 (Chemistry of Synthetic High **Polymers**)
ST acrylic **copolymer** manuf antimicrobial; ethoxylated lauramine dimethacrylate antimicrobial **copolymer** manuf; transesterification ethoxylated lauramine methyl methacrylate; quaternary ammonium methacrylate **copolymer** manuf microbicide
IT Quaternary ammonium compounds, preparation
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)
(**copolymers**; manufacture of acrylic **copolymers** with antimicrobial properties)

IT Antimicrobial agents
(manufacture of acrylic **copolymers** with antimicrobial properties)

IT Coating materials
(manufacture of acrylic **copolymers** with antimicrobial properties for use in)

IT Plastics, miscellaneous
RL: MSC (Miscellaneous)
(manufacture of acrylic **copolymers** with antimicrobial properties for use in)

IT **207979-77-9P**, Butyl acrylate-Methyl methacrylate-Quat A **copolymer** 207979-79-1P, Butyl acrylate-2-(2'-Methacryloylethoxy)ethyldimethyltetradecylammonium chloride-Methyl methacrylate **copolymer**
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(manufacture of acrylic **copolymers** with antimicrobial properties)

IT 84943-06-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and quaternization; manufacture of acrylic **copolymers** with antimicrobial properties)

IT **31017-83-1**, Marlazin L 10
RL: RCT (Reactant); RACT (Reactant or reagent)
(transesterification with Me methacrylate; manufacture of acrylic **copolymers** with antimicrobial properties)

IT 80-62-6, Methyl methacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(transesterification with ethoxylated lauramine; manufacture of acrylic **copolymers** with antimicrobial properties)

IT **207979-77-9P**, Butyl acrylate-Methyl methacrylate-Quat A **copolymer**
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(manufacture of acrylic **copolymers** with antimicrobial properties)

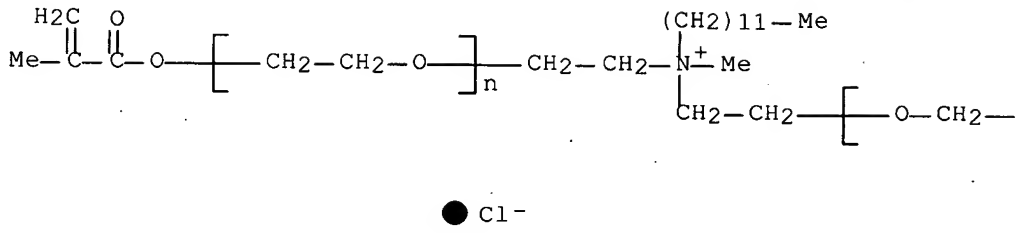
RN 207979-77-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and α,α'-[(dodecylmethyliminio)di-2,1-ethanediyl]bis[ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] chloride (9CI) (CA INDEX NAME)

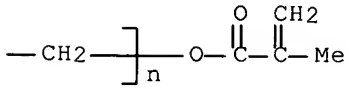
CM 1

CRN 207979-76-8
CMF (C2 H4 O)n (C2 H4 O)n C25 H46 N O4 . Cl
CCI PMS

PAGE 1-A

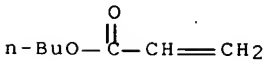


PAGE 1-B



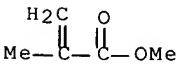
CM 2

CRN 141-32-2
CMF C7 H12 O2



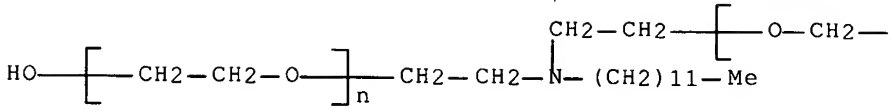
CM 3

CRN 80-62-6
CMF C5 H8 O2

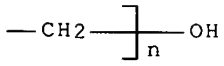


IT **31017-83-1**, Marlazin L 10
RL: RCT (Reactant); RACT (Reactant or reagent)
(transesterification with Me methacrylate; manufacture of acrylic **copolymers** with antimicrobial properties)
RN 31017-83-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α'-[(dodecylimino)di-2,1-ethanediyl]bis[ω-hydroxy- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 37 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:502743 HCAPLUS Full-text
DN 127:123289
TI Aqueous **dispersion** of a surface-active polymer, its preparation, and foamable surfactant compositions
IN Dahanayake, Manilal S.; Gao, Tao; Larson, Eric H.
PA Rhone-Poulenc Specialty Chemicals Co., USA
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9722640	A1	19970626	WO 1996-IB1443	19961217 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5686024	A	19971111	US 1995-573794	19951218 <--
AU 9710394	A	19970714	AU 1997-10394	19961217 <--
PRAI US 1995-573794	A	19951218 <--		
WO 1996-IB1443	W	19961217 <--		

AB The surface-active polymer, which demonstrates enhanced surface activity and performance properties as a foaming agent, is derived from a vinyl monomer containing quaternary N 0.1-95, a vinyl monomer containing an amide group 0.1-95, CH2:CRCO(OCH2CHR1)m(OCH2CH2)nOR2 (R = H, C1-6 alkyl; R1 = C1-4 alkyl; R2 = C8-40 hydrophobic group; m = 0-50; m + n = 6-100; n ≥ m) 0.5-75, and R3CH:CR4CO2H (R3 = H, Me, CO2R5; R4 = H, C1-4 alkyl, CH2CO2R5; R5 = H, C1-4 alkyl) 0-10 weight%. Thus, CH2CMeCO(OC2H4)25O(CH2)21Me 27.4, 52.5% aqueous acrylamide 110, 62% aqueous diallyldimethylammonium chloride 23.9, and methacrylic acid 13.7 g were **copolymd.** with NH4 persulfate in aqueous medium at 90° and pH .apprx.7 to give a polymer with mol. weight 50,000, which enhanced foam formation by a series of anionic, nonionic, and zwitterionic surfactants.
IC ICM C08F220-28
ICS C08F220-34; C08F226-04; C08L033-00
CC 46-3 (Surface Active Agents and Detergents)
Section cross-reference(s): 35
ST surfactant polymer foaming agent; acrylamide **copolymer** foaming

agent; cationic surfactant acrylamide **copolymer**; nonionic surfactant acrylamide **copolymer**

IT **192510-12-6P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(aqueous **dispersion** of surface-active polymer as foaming agent)

IT 1643-20-5, Rhodamox LO **9004-82-4**, Rhodapex ES 86438-79-1, Miratraine CB 172344-71-7, Miranol Ultra C 32 192638-16-7, AgRHO FM 3800 192726-87-7, Miracare BC 10 192726-88-8, Miracare BC 20
RL: PRP (Properties)
(surface-active polymer for enhancement of foaming properties of)

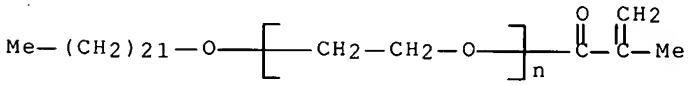
IT **192510-12-6P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(aqueous **dispersion** of surface-active polymer as foaming agent)

RN 192510-12-6 HCAPLUS

CN 2-Propen-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-(docosyloxy)poly(oxy-1,2-ethanediyl), 2-methyl-2-propenoic acid and 2-propenamide (9CI) (CA INDEX NAME)

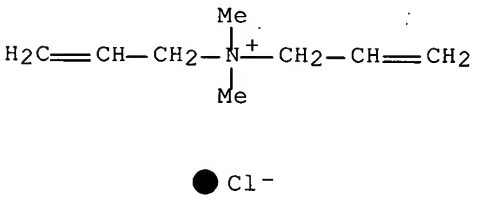
CM 1

CRN 115047-92-2
CMF (C2 H4 O)n C26 H50 O2
CCI PMS



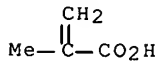
CM 2

CRN 7398-69-8
CMF C8 H16 N . Cl



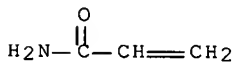
CM 3

CRN 79-41-4
CMF C4 H6 O2

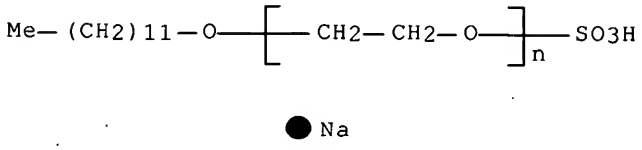


CM 4

CRN 79-06-1
CMF C3 H5 N O



IT **9004-82-4**, Rhodapex ES
RL: PRP (Properties)
(surface-active polymer for enhancement of foaming properties of)
RN 9004-82-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-sulfo-ω-(dodecyloxy)-, sodium salt (1:1) (CA INDEX NAME)



L91 ANSWER 38 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:393833 HCAPLUS Full-text
DN 127:35567
TI Resin binder compositions with thermally reversible thickening
IN Osumi, Tatsuya; Okamoto, Takeshi
PA Sanyo Chemical Industries Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09111134	A	19970428	JP 1996-157651	19960528 <--
	JP 2779611	B2	19980723		
PRAI	JP 1995-209036	A	19950724 <--		

AB Title compns. of heat-sensitive gelation contain cationic resin latexes and anionic thickening compds. whose hydrophilicity and hydrophobicity are reversibly changed at a temperature The compns. are useful for paper coatings showing high gloss and improved printability. Thus, styrene 45, Me methacrylate 9, methacrylic acid 4, acryloyloxy-terminated polyoxypropylene dimethylaminoethyl ether MeCl salt 5, and butadiene 37 parts were emulsion-polymerized in water to give a 47.9%-solids latex, 100 parts of which was mixed with 3 parts 20% aqueous solution of 9:1 polyethylene glycol monomethyl ether monomethacrylate-itaconic acid **copolymer** to give title composition

Then, a coating comprising a pigment **dispersion** containing clay and CaCO3 and the above composition was applied on a medium-quality paper, dried at 150° for 30 s, and supercalendered at 60° to give a coated paper showing white gloss 68% and gloss after off-set printing 70%.

IC ICM C08L101-02
ICS C08L009-08; C08L025-10; C08L047-00; C08L101-00; D21H019-44; C08F002-24; C08F236-10; C08F290-06

CC 38-3 (**Plastics** Fabrication and Uses)
Section cross-reference(s): 42, 43

ST resin binder thermally reversible thickening; heat sensitive gelation binder coating; paper coating heat sensitive gel; cationic latex blend thermally reversible thickening; anionic thickening agent thermally reversible; styrene acryloyl polyoxypropylene ammonium salt **copolymer**; methyl methacrylate acryloyl ammonium salt **copolymer**; methacrylic acid acryloyl ammonium salt **copolymer**; itaconic acid polyethylene glycol methacrylate **copolymer**

IT **Polyoxyalkylenes, uses**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(anionic; binders comprising cationic latexes and anionic compds. of thermally reversible thickening for coatings for paper)

IT **190282-09-8P 190282-12-3P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(latex; binders comprising cationic latexes and anionic compds. of thermally reversible thickening for coatings for paper)

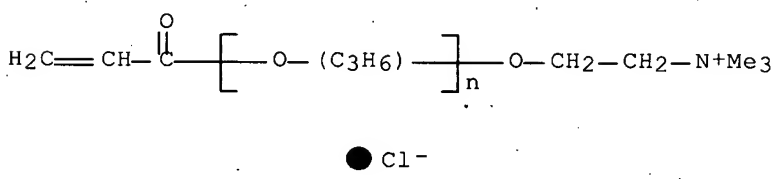
IT **190282-09-8P 190282-12-3P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(latex; binders comprising cationic latexes and anionic compds. of thermally reversible thickening for coatings for paper)

RN 190282-09-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,3-butadiene, ethenylbenzene, methyl 2-methyl-2-propenoate and α-(1-oxo-2-propenyl)-ω-[2-(trimethylammonio)ethoxy]poly[oxy(methyl-1,2-ethanediyl)] chloride (9CI) (CA INDEX NAME)

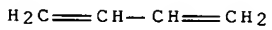
CM 1

CRN 190282-08-7
CMF (C3 H6 O)n C8 H16 N O2 . Cl
CCI IDS, PMS



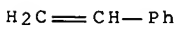
CM 2

CRN 106-99-0
CMF C4 H6



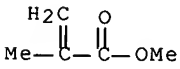
CM 3

CRN 100-42-5
CMF C8 H8



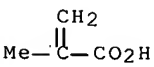
CM 4

CRN 80-62-6
CMF C5 H8 O2



CM 5

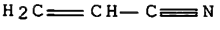
CRN 79-41-4
CMF C4 H6 O2



RN 190282-12-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1,3-butadiene, ethenylbenzene, methyl 2-methyl-2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-[2-(trimethylammonio)ethoxy]poly[oxy(methyl-1,2-ethanediyl)] methyl sulfate and 2-propenenitrile (9CI) (CA INDEX NAME)

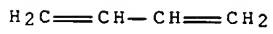
CM 1

CRN 107-13-1
CMF C3 H3 N



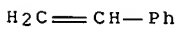
CM 2

CRN 106-99-0
CMF C4 H6



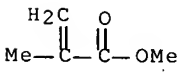
CM 3

CRN 100-42-5
CMF C8 H8



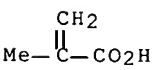
CM 4

CRN 80-62-6
CMF C5 H8 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2

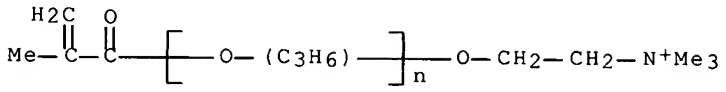


CM 6

CRN 190282-11-2
CMF (C3 H6 O)n C9 H18 N O2 . C H3 O4 S

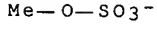
CM 7

CRN 190282-10-1
CMF (C3 H6 O)n C9 H18 N O2
CCI IDS, PMS



CM 8

CRN 21228-90-0
CMF C H3 O4 S



L91 ANSWER 39 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:478866 HCAPLUS Full-text
DN 111:78866
TI Terpolymers of acrylamide, polyether acrylates and betaines
IN Schulz, Donald N.; Duvdevani, Ilan; Bock, Jan; Kaladas, Jeff J.
PA Exxon Research and Engineering Co., USA
SO U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 907,479, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4788247	A	19881129	US 1987-121399	19871116 <--
PRAI US 1985-815218	A2	19851231 <--		
US 1986-907479	A2	19860915 <--		

OS MARPAT 111:78866
AB The title terpolymers, soluble in H2O and brine and useful in thickening aqueous solns., are prepared from repeating units derived from ester-, amide-, or vinylpyridine-based betaines. Polymerizing acrylamide 30, polyethylene glycol nonylphenyl ether acrylate 1.43, and (3-sulfopropyl)[2-(methacryloyloxy)ethyl]dimethylammonium betaine 1.28 g with K2S2O8 gave a terpolymer with viscosity in 10% and 20% NaCl 450 and 3000 cP, resp.
IC ICM C08F028-02
ICS C08F020-38; C08F020-60
INCL 524547000
CC 35-5 (Chemistry of Synthetic High **Polymers**)
ST acrylamide **copolymer** thickening agent; polyoxyethylene acrylate **copolymer**; betaine **copolymer** thickening agent; brine thickener acrylamide **copolymer**; methacrylate betaine deriv **copolymer**
IT Thickening agents
(acrylamide-polyoxyalkylene acrylate-betaine **copolymers**, preparation of)
IT **Polyoxyalkylenes, compounds**
(acrylate- and hydrocarbyl-terminated, with acrylamide and betaines, thickening agents, manufacture of)
IT 102128-57-4P **122141-88-2P**
RL: **PREP (Preparation)**
(thickening agents, manufacture of)
IT **122141-88-2P**
RL: **PREP (Preparation)**

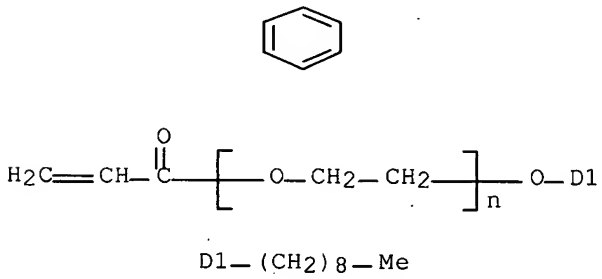
(thickening agents, manufacture of)

RN 122141-88-2 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with α-(1-oxo-2-propenyl)-ω-(nonylphenoxy)poly(oxy-1,2-ethanediyl) and 2-propenamide (9CI) (CA INDEX NAME)

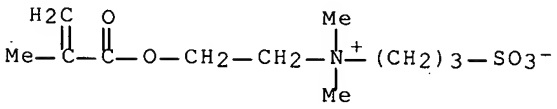
CM 1

CRN 50974-47-5
CMF (C2 H4 O)n C18 H26 O2
CCI IDS, PMS



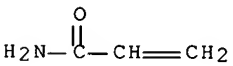
CM 2

CRN 3637-26-1
CMF C11 H21 N O5 S



CM 3

CRN 79-06-1
CMF C3 H5 N O



=>